Annuals in Pots.

SOME of our readers, especially among the old gardeners, may not be inclined to regard annuals with much favor as winter-blooming plants; their favorites are the substantial hard-wooded plants. In addition to a certain prejudice, which we esteem misplaced, they look upon annuals in the greenhouse as altogether unworthy of their skill; they will do well enough in the border, but nowhere else; and almost the only exception they will admit is Mignonnette, for the sake of its fragrance. We do not say that all of them feel thus on the subject, and we only mention the case for the purpose of adding, that skill, knowledge, and taste are just as necessary to grow annuals well as any hard-wooded plants whatever; and the young amateur especially will do well to bear the fact in mind. It is not the rarity of a plant, or the circumstance of its being perennial, that gives it its chief value, but it is rather its intrinsic beauty, and its adaptedness to the purposes of ornamentation: we are quite too apt to seek the rare and costly, to the utter neglect of many old and beautiful plants within the reach of all: the former should be sought discriminatingly, but the latter should not be neglected. The associations which cluster around the flowers of our youth with so much tenderness, should secure for them a place in our most mature affections.

One of our chief objects in having a greenhouse at all, and one in which failures are by no means unfrequent, is to fill it during the winter months with such a collection of plants as shall give it a gay and cheerful appearance, and afford us the means of a pleasant recreation and study; we say study, for we have little respect for a man who can go through a collection of plants without leaving them wiser and better than when he entered. We can give additional variety to this source of enjoyment by growing during the winter months some choice annuals, many of which are admirably adapted to this purpose; some of them, indeed, for beauty of flower, foliage, and form, will compare favorably, when well grown, with the choicest of our hard-wooded plants. We have grown them for many years, and each successive year has increased our love of them. They are both beautiful and appropriate, and commend themselves admiringly to the amateur. Among a considerable number suitable for ornamenting the greenhouse, we would name the *Collinsia bicolor* and *multicolor; Schizanthus Grahamii, Hookerii, Priestii*, &c.; *Lobelia gracilis* and *ramosa; Alyssum maritimum; Reseda odorata*, or *Mignonnette; Clarkea nereifolia* and *marginata; Iberis speciosa, amara*, and *umbellata; Mathiola*, ten-week stock; *Nemophila grandiflora, maculata*, &c.; *Rhodanthe Manglesii, Acroclinium roseum, Senecio elegans, Ageratum Mexicanum*, and *Whitlavia grandiflora*. We have named them in the order in which we prefer them; and we will take occasion to say

that we doubt whether the California annuals can be grown in perfection here except in the greenhouse; the Collinsia bicolor, for example, in the greenhouse and in the open border, would hardly seem to be one and the same plant.

Our young readers will probably be glad to know the best mode of growing these annuals, and we will try to tell them. Any light rich soil will do to start the seed in; and if not already light enough, it may be made so by the addition of sand. Shallow boxes about a foot square, or of any convenient size, are better than pots; they may be made of planed boards, or of any rough stuff, and should have in the bottom one or more holes, about an inch in diameter, to carry off the surplus water; these holes should be covered with a piece of broken pot. Break the earth up fine, fill the boxes, and settle the earth by knocking on the side of the box. Draw drills two inches apart, and varying in depth according to the size of the seed. The smallest of the seed above named, the Lobelia, should be sown nearly on the surface, having just enough earth on them to keep them in place; the largest should not be more than a quarter of an inch deep when covered. One or more drills may be devoted to the same kind of seed, according to the number of plants wanted. It is best to sow the seed moderately thick, since much of that bought at the stores is often imperfect; it is a very simple matter to thin the plants out if too thick, which is not apt to be the case, since they are very soon to be transplanted. When the seeds are sown, press the earth upon them moderately hard with a piece of board, or the bottom of a flower pot, which will cause them to vegetate sooner and more uniformly. As soon as the seed is sown, the boxes should be well watered, using for this purpose a watering pot with a finely-pierced rose; the watering must be attended to daily, never allowing the earth to become too dry, or soddened with water. The boxes should, if convenient, be protected from heavy rains until the seeds break through, when they should be freely exposed to the sun to make the plants stocky and strong. It is best to keep the boxes out of doors till the weather becomes too cool for the plants; if they have been pricked into pots, keep the pots out of doors, except a few for early blooming.

Having sown the seed, the next step will be to prepare a suitable compost for growing the plants in. This may be made of two parts of rotted sod or good loam, one part of vegetable mould, and one part of fine old manure, with sand enough to make it tolerably light. If charcoal dust can be procured, it may be used freely with the best results. This compost should be laid up in a heap in some sheltered place, frequently turned, and not allowed to become dry. Pots varying in size from two and a half to seven inches in diameter should be got together, and cleaned. As soon as the young plants have taken on two or three leaves, they should be taken up, and put in the smallest pots singly, except the Lobelia, of which from one to half a dozen plants may be put in each pot. Proceed as follows: cover the hole in the bottom of the pots with a piece of clam-shell or broken pot, and fill them with the compost before named, settling it by gently pressing it with the thumb. Take a trowel, lift out some of the plants, and separate them carefully; with the thumb and fore finger of the left hand, take up one of the plants by the largest leaf, make a hole in the middle of the pot with a rounded stick, drop in the roots of the plant nearly to the seed leaves, and draw the earth to and around the roots with the stick, settling the whole by

knocking the bottom of the pot on the table. The hole should be deep and large enough to admit the roots. In some cases, where the plants are older and the roots of some size, the pot should be partly filled with dirt, the plant held as before, and the dirt gradually filled in around and between the roots with the right hand. If there should be more plants than are wanted for present use, they can be disposed of by placing three in a pot, but close to the sides instead of the middle; they can then be readily separated if subsequently used. As soon as pricked out, the plants should be well watered, and the pots set in the shade for a few days, or till the plants begin to grow. The watering must be carefully attended to, always giving enough water to go through the pot. A succession of bloom may be obtained by sowing seed at intervals, or by bringing forward a few pots at a time; but all the plants before named, when once in bloom, will remain so for a long time. Seed may be sown during the month of August, and even September will not be too late; Alyssum and Mignonnette may be sown at intervals during the month for late bloom. The plants should be left out of doors until there is danger of frost, when they should be placed in a light and airy part of the greenhouse.

Having the young plants established in small pots, our object is to keep them growing uninterruptedly to the time of flowering, by which means we obtain large, well-formed, and vigorous plants. As soon as the small pots have become filled with roots, which may generally be known by the latter running through the hole in the bottom of the pot, the plants should be repotted; and at this point some variations will take place in the treatment. Schizanthus, Clarkea, Mathiola, Senecio, Ageratum, and Whitlavia, should be shifted into four-inch pots; so, also, should a part of Collinsia, Rhodanthe, Acroclinium, Nemophila, and Lobelia; and another portion of these latter may be put in seven-inch pots, three plants in each, where they are to remain and bloom. Alyssum, Mignonnette, and Iberis may be shifted into five or six-inch pots, with from three to six plants in each. The "shifting" is done as follows: place the left hand over the top of the pot with the plant between the first and second finger; take hold of the pot with the right hand, invert the pot, and knock the rim gently on the edge of the table; the ball of earth will come out entire, being held together by the roots; but it must nevertheless be handled very carefully. A little practice will make the operation comparatively easy. Cover the hole in the bottom of the large pot as before directed, and put in a layer of small pieces of charcoal, pebbles, or potsherds for drainage; then put in some earth and shake it down; there should be just as much earth in the bottom as will be necessary, when the ball is placed in it, to bring the top of the latter within about half an inch of the top of the pot; the vacant space around the ball is then to be filled in, and the earth pressed down with a moderate degree of firmness, but not packed. Shading will not be necessary after this repotting. The soil for the Rhodanthe, Acroclinium, Lobelia, and Mignonnette should have an additional quantity of sand added to it.

The after treatment will be somewhat as follows: Watering must be attended to, and the plants never allowed to wilt for want of water, or the foliage will turn brown and drop off. Acroclinium will need frequent and abundant supplies of water when in bloom: make it a rule, when watering, to give enough to go entirely through the pot; on this, success in no small measure depends. The plants must not be crowded together; they must

have room enough for the growth of their laterals, and be staked and tied as growth progresses. The earth on the surface must be occasionally stirred, and the pots kept clean by washing if necessary. An occasional watering with lime water will destroy worms and insects in the soil, and benefit the plants; and manure water applied sparingly will also be beneficial, but we do not recommend guano. A few of the plants may be left in the four-inch pots for early bloom; but the principal part of them should be shifted into six or seven-inch pots before they become pot bound; this is necessary to secure large and handsome plants. If they become pot bound, the growth will be checked, and the plants break into bloom too soon. Lobelia gracilis is a trailing plant, and should be allowed to hang over the sides of the pot, and the pot hung up; and that is also a good way of growing the Nemophila. Lobelia ramosa may be tied to a small stake. Alyssum, when grown singly, should be tied up; otherwise not; and so of Mignonnette. All the others should be staked. Collinsia bicolor, when well grown, is a splendid winter-blooming plant, the most beautiful, in our estimation, of all those we have named. But our article has reached such a length that we must stop for the present.

We make no apology for the above details. We are constantly in receipt of letters which convince us that just such details are what a large number of our readers need, and it is our duty to furnish them; even some "old hands" may not find them altogether uninteresting. We can not forget that there was a time when details like these possessed more interest for us than the pages of a highly wrought romance. Let us "not despise the day of small things."

NATIVE WINES AND TEMPERANCE.

BY REV. A. D. GRIDLEY, CLINTON, N. Y.

It is gratifying to observe the interest now so widely felt in grape-culture. New seedlings of merit are introduced every few years, and acres upon acres of approved varieties are annually planted. Of course, these vines are not all intended for raising table-grapes: a large proportion are designed for the manufacture of wine. Heretofore, our central States, in the latitude of Ohio and Kentucky, have produced nearly all the wines of this country; but with the introduction lately of superior grapes ripening in August and September, vineyards have sprung up all over the North, and good domestic wine is found in almost every market. Professed wine-tasters, familiar with the best vintages of Europe, may tell us that American wines are only sirups or cordials; and the French may laugh at our "bad enough *piquette*, as compared with the foaming wines of Epernay;" but so long as we can get the pure juice of the Catawba, Diana, and Delaware grapes, we, in our simplicity, shall be very well satisfied.

We do sincerely rejoice in the introduction of pure native wines. It gratifies our national pride. Ere long this manufacture may become a source of national wealth. Possibly, too, it may contribute to the national morality. For surely, if Brother Jonathan must drink a certain amount of intoxicating liquors annually, it were better that he should drink that which is reasonably pure, than the adulterated and vile mixtures now so common. For medicinal

and sacramental purposes, at least, it is important to have an article whose purity is beyond suspicion.

We somewhat question, however, the soundness of the above argument in reference to the national morality, and beg leave to state our misgivings. Surely, the readers of the HORTICULTURIST will indulge the writer in this, even if they are of a contrary mind, since the other side of the question has been so often presented in these pages. At least, let us look at both sides, and then judge.

1. In favor of the manufacture and general use of pure wine, we are told that it can not be essentially immoral. Does not the Bible speak of "wine that maketh glad the heart of man?" Remember, also, the Saviour's miracle at the wedding. St. Paul counselled Timothy to "use a little wine for his stomach's sake and his often infirmities." Such expressions would not be used in the Sacred Scriptures, if the drinking of good wines were inconsistent with health and morality.

Moreover, if it be true that impure wines inflame the blood and kindle an artificial excitement, injurious alike to body and soul, it is yet also true that pure wine exhilarates and strengthens man, and contributes to the development of all his faculties. As long ago as Plato's time, it was called "the milk of old age." And the Italians have wrought the saying into a proverb, "Milk is the wine of youth, but pure wine is the milk of old age." All experience shows that man craves and will use some kind of stimulant: it may be tea, or coffee, or tobacco, or betel-nut, or opium, or rum, beer, cider, wine; whether he rightfully or wrongfully craves it, we do not now inquire, but the fact remains, that he desires it, and will have it. The simple and practical question therefore is, What shall that stimulant be? Shall it be the vile compounds which nearly all the malt and alcoholic liquors now in market confessedly are, or shall it be pure wine, from native grapes?

Another argument is drawn from the moral condition of the wine-producing districts of Europe. There, it is said, the common people make daily use of the light native wines of the country, yet are seldom intoxicated, and do not fall into the other degrading vices which prevail among the rum-drinking populations of our own country. Hence the inference, that if pure, innocuous wines were manufactured abundantly here, and made so cheap that all classes could use them, they would drive the fiery, alcoholic liquors, and all artificial mixtures from the market, and so would promote the cause of temperance and general morality; yea, much more efficiently than "Maine laws," or any other legal restrictions or voluntary societies.

2. But many persons hold an opposite opinion, and maintain it in words like these: Whether wine-drinking is inherently wrong or not, it is a fact that all the drunkenness in the world for the first five thousand years was produced by wine. The first man who planted a vineyard, fell into shameful intoxication by the simple use of his own pure native wines. Lot made a beast of himself by the same means. Alexander the Great murdered his own friend, and afterward committed suicide, under the influence of this proposed remedy for intemperance. Timothy may take a little wine as a medicine, unquestionably with good effect, but let him remember that to use it as a beverage is a hazardous indulgence.

The plea that men *will* use some stimulating drink, and therefore should be provided with a cheap and good article, reminds us of an anecdote related years ago in this journal by a leading vigneron of Cincinnati: "Father Mul-

rooney, a Catholic priest in one of our western towns, had a hard set in his parish to deal with ; a frolicking, drinking congregation as could be found in the suburbs of any city, and they fairly worried the life out of him. At last, after a strong temperance exhortation, which he found would have no effect, he closed as follows : Now I am afraid all this admonition will be thrown away on you, ye hardened sinners. You know you have been vexing the very life out o' me, you hathen, and sorra the bit do I belave you'll heed it : so, if you *will* drink, and make brute bastes of yourselves, go to Barney Coyles ; he is a dacent lad, and keeps the best liquors in the town!"

If it be true that the peasantry of southern Europe—a quiet and comparatively unenterprising people—drink their pint of light wine daily, without falling into habits of inebriety, it by no means follows that such would be the case in the colder and more fickle climate of this country, and among a people of so excitable a temperament as our own. The habit once formed of using a beverage with only eight or ten per cent. of alcohol, would lead on to the use of stronger liquors. Well has one observed : "We might as well say that vineyards would make our people eat less meat, less corn and pork, because the residents of European wine-districts are known to be addicted to a vegetable diet. * * * * In this land everything tends to excitement. Men live upon a higher key, and live faster, and live much more full of exhilaration than the same classes do in foreign lands. Our people drink not for the *taste*, but for the *excitement* of liquor ; and so that wine, beer, or whisky will bring them up to the right key, the question of unwholesomeness is quite unimportant." (*H. W. Beecher.*)

But it is not true that the inhabitants of the wine-producing regions of Europe are not addicted to intemperance. Certain pleasure travellers, flying over "the grand tour" of the continent, visiting only museums of art, classic ruins, and the splendid public squares of cities, come home to tell us of the morality of the peasants of Europe ! Little do they know about it. Other travellers, journeying more at leisure, and making special inquiries into the condition of the common people, both in the country and in the lanes of cities, come home with a different story. They speak of poverty, ignorance, idleness, and vice in all its forms ; and as traceable mainly to this very habit of wine-drinking.

Louis Philippe, while king of France, stated to a distinguished American philanthropist, that "the drunkenness of France was on wine." His son added, that "it would be a blessing to France, could all the grape-vines be destroyed, except so far as their products could be used for food."

The Duke of Orleans observed to the same gentleman, that the frequent want of subordination in the French army could be traced to the daily use of wine, "and most of the crime and poverty in the country, especially in the wine-districts, to the same cause."

James Fennimore Cooper declares : "I came to Europe under the impression that there was more drunkenness among us than in any other country, England, perhaps, excepted. A residence of six months in Paris changed my views entirely. I have taken unbelievers with me into the streets, and have never failed to convince them of their mistake in the course of an hour. On one occasion, we passed thirteen drunken men in one hour. * * * In passing between Paris and London, I have been more struck by drunkenness in the streets of the former city, than in those of the latter."

The sculptor, Horatio Greenough, in writing from Florence, some twenty

years ago, said: "Many of the more thinking and prudent Italians abstain from the use of wine; several of the most eminent physicians are opposed to its use. When I assure you that one fifth, and sometimes one fourth of the earnings of the laborers are expended in wine, you may form some idea as to its probable influence on their thrift and health."

Lord Acton, once Supreme Judge of Rome, assured an American traveller that "all, or nearly all, the crime in Rome originated in the use of wine."

Mr. R. S. Fay, of Lynn, Mass., once declared at an agricultural meeting in Boston, that he "had never seen so much intemperance in New England, as he had within sight of the Pyrenees."

The argument drawn from the morality of wine-growing districts of Europe will hardly bear handling: it falls to pieces. But, supposing that pure wines would answer the end proposed, viz., as a preventive of intemperance, is it probable that they could be manufactured in this country at so low a cost as to bring them within reach of the common people? We greatly question it. And again, if they could, have we any assurance that native wines would be less liable to adulteration than the foreign confessedly are, or than native spirituous liquors are? No one can deny that adulteration of wine is common in all parts of Europe. Rev. Dr. Baird, an extensive traveller on the continent, and a close observer, says that "pure wine can seldom be found except at the vineyards, and that adulteration is all but universal." Greenough says that the wines of Italy are seldom found pure; "for, although the pure juice of the grape can sometimes be furnished at about one cent a bottle, yet all who have studied the matter know that the retailers choose to gain a profit by the addition of water and drugs, that will maintain the color, body, bouquet, and intoxicating qualities it originally possessed." And if wine, which can be made at so cheap a rate, is adulterated for a profit, will our own more costly article fare better? It is notorious that the wines of certain American merchants, extensively advertised as pure, and made from native grapes, will not bear the test of chemical analysis. If adulterated wines will *pay* the manufacturer better than pure, we may rest assured that such wines will be made.

Such, in substance, are the arguments on both sides of this question. The writer of this article does not undertake now to pronounce judgment upon them. Meanwhile, he earnestly recommends the home manufacture of wine for medicinal and sacramental purposes, and the extensive culture of grapes for the table.

[A question, this, of grand importance, whether viewed in its commercial or moral aspect; one, too, that ought to be met early and fairly. We have considered the subject seriously in all its bearings, and our present conviction is, that the introduction of pure American wines will tend to lessen the evils of intemperance, and it is this conviction which has caused us to speak encouragingly of their manufacture. This is one of those questions which we are not willing to treat of in a commercial aspect alone, however much wealth it might put in our coffers; its moral bearings are too overwhelming to be lost sight of for a moment. We nevertheless believe, that to accomplish any practical good, we must, in our philanthropic enterprises, deal with mankind as we find them; and if we can not do all the good we would, let us do what we can. We thank Mr. Gridley for having started the subject; we can at least promise him to keep it open.—Ed.]

LANDSCAPE ENGINEERING AND GARDENING.—II.

BY GEO. E. WOODWARD, CIVIL AND LANDSCAPE ENGINEER, 29 BROADWAY, N. Y.

THERE can not be anything more commendable than that spirit which induces us to ornament and embellish our country homes, and draw around us those tasteful elegances which so properly belong to country life; nor is there anything which so fully illustrates the position, tastes, and wealth of its owners, as a well-designed and well-kept country seat.

The high standard now reached in the progress of Landscape Art, and the increasing interest that is being shown in the construction of public parks, rural cemeteries, &c., is an evidence of our appreciation of the beautiful, and that rural enjoyments are not limited to but few of the residents of our large cities. The public taste is being educated every day, by opening to all the finest models known of landscape improvement—a greater perfection in rural art than has heretofore been attempted in any of our private country seats.

High art in landscape gardening is a matter of economy as well as taste. It is less expensive, in the execution of any improvement, to attain excellence at once, than to find out after completion, that a better and more satisfactory plan might just as easily have been adopted. It costs no more to set out a tree in the most appropriate place for it, than to set it out in a position anywise inferior to that which it would adorn the most. It is cheaper and far more satisfactory to have first-class roadways and walks; not only cheaper in first cost, but cheaper in every after expense.

Nature deals in the most beautiful forms of curvature, and from them it is but a step to the broken forms of the picturesque. There is no intermediate link, no straight lines, either wild and broken, or graceful, flowing, and beautiful: one may lead to the other, they may be united, but the characters of each will always be distinct; and we think that taste somewhat questionable that would introduce what are termed rustic walks and drives into the wholly natural portion of an estate. There is nothing so pleasing as to give access to the picturesque by the use of the beautiful: that is, art in construction would convey a greater perfection, and nature appear more wild and picturesque by the striking contrast between them. We would not, as a matter of taste, make inferior roads and walks through natural grounds, because we do not wish to diminish any pleasure we may enjoy in them; and as roadways become ornamental in the same proportion that they are useful, we plainly see that any detraction from the highest known perfection in their design, location, and construction, is just so much detraction from their beauty. If the picturesque portions of the grounds are to be made inviting, there must be the same unconscious ease of ascent and descent, the same forgetfulness of toil that belongs to the artificial or highly dressed grounds. Clambering a hill-side soon loses its novelty; and we confess we like that reason that enables us to so contrive a walk or road that, by an almost imperceptible grade, and the most beautiful forms of alignment, we view alike the valley and the hill-top.

When we undertake to embellish and beautify a country home, is it not worth while to give the subject a long and careful consideration? It is going to cost a good deal of money, and as long as our name is connected with it, it will be an exponent of our tastes, our education, and associations.

It is by no means agreeable to have a second-rate place; yet we will venture to say that ninety-nine one-hundredths of our amateur landscape gardeners would willingly undo all they have done; their matured judgment and experience can see nothing desirable in their early attempts. Experience costs money, and the results of experience have done much to injure the art of landscape adornment. If men will try experiments, why give their results as the results of the positive efforts of the professional expert? There are none so perfect, none so gifted, that they can at once produce the highest standard of excellence in any art. We know that those who approach perfection the nearest, can only do so after a lifetime of study and devotion.

The ideal in landscape treatment is a dangerous experiment in the hands of any but a rural artist, and, like the ideal in landscape painting, suffers sadly by comparison with the close teachings of nature. A finely executed view of natural scenery yet takes the lead of the finest ideal landscapes: effects, all of the same grade of beauty, are not so striking as a single fine effect brought in contrast with others of lesser note. It is by comparison the eye judges of excellence, and the beautiful depreciates when brought in contrast with that which is more beautiful. The hand of Art can aid Nature, arrange the materials so freely supplied; and that artist who closely studies nature, and takes advantage of the many hints thrown in his way, will be more successful than he who undertakes to idealize, and particularly so if he be a knight of the weeding-hoe and spade.

JOTTINGS OF A FLYING VISIT TO BOSTON AND VICINITY.

Being a thorough-bred Yankee, my first instructive lisping, so they tell me, was "Go-ahead." When I became a tall boy, I was afflicted with sundry diseases peculiar to the "teens," among which was a love of jewelry; so I sported a large ring: thereon was engraved my motto, "Go-ahead." Now I am an old man, behold it on the panels of my carriage. "Speaking of Peaches, Jasper," says my friend, "there is one of your go-ahead men has built a real Orchard House: here is his address, 'G. G. Hubbard, Esq., Brattle st., Old Cambridge.'" It is absurd to suppose I raised excuses. No, gentle reader, I am an enthusiast of the first water, and would rather erase from my panels and plate those envied armorial bearings granted by John of Magna Charta notoriety, cut all our upper-tendom acquaintance in Gotham, and risk my daughter's being married to some plebeian who could not reckon a line of ancestry of some six or seven hundred years, than forego the pleasure of visiting gardens and seeing everything new or progressive; so seizing my hat, I mount the horse-cars, and am soon before one of those beautiful suburban residences famous around Boston. This is well planted with evergreens, very fairly arranged, and superbly kept: inquiring for the gardener, I found Mr. Welsh, who very kindly communicated all particulars. The house is built of the best materials, and is well finished; runs north and south, and faces the west, is somewhat flat, as the following dimensions will show: length, 115 feet; breadth, 18 feet; height of back wall, 12 feet, of which 3½ is glass; height of front wall, 8½ feet, of which 2½ is glass; both front and back wall sashes are movable for ventilators. There are

150 trees in tubs of 18 inches in diameter, consisting of Peaches, Plums, Nectarines, Cherries, Pears, and Figs, but principally Peaches and Nectarines, and although they were only tubbed early last fall, they are very thickly fruited; but I did not notice they were more than a week or ten days in advance of those in the open ground; but more healthy, vigorous trees it is impossible to conceive.

Now everybody is aware Orchard Houses originated with Mr. Rivers, of England; but the climate of Old England and the climate of New England are very dissimilar, at least so I found it during my sojourn there; and Mr. Rivers is entitled to the best thanks of his countrymen for showing them how to secure a crop of Peaches, &c., which drenching rains and late spring frost always rendered uncertain. The Orchard House of Mr. Rivers is a mere skeleton, with a few rough boards for lids, permanent openings for ventilation, immovable sashes. Their climate requires nothing more. The means are sufficient to the end. To ward off heavy rains and slight frost, which destroy the organs of fructification, is all that is necessary. Compare their weather tables with ours in the months of March, April, and early in May, and then let me ask anybody what would be the condition of the occupants of an Old England Orchard House in a New England climate. The extremes in twenty-four hours are something that would frighten an English gardener. Mr. Welsh informed me that the temperature in and out of the House by night was identical, and that as a precautionary measure he had covered up his trees with sea-weed, in order to retard them; for had he availed himself of our bright and glorious sunshine, the night would have used them up as surely as if they had been in the open quarter. Now what does this suggest? a hot-water pipe, a heating apparatus, if you please, and there we drop the term Orchard House; it at once and forever ceases to be one in the English acceptation of the term.

My experience assures me that all trees in their dormant season are as well and perhaps better in a cellar or some such place where the temperature is not hot enough to excite, nor cold enough to reach zero, till they are wanted, and then transfer them to the House, where you have some command over the temperature.

Another English method for growing the Peach under glass is somewhat common in this neighborhood, and I say erroneous, as no calculation of the immense difference of climate could have been considered. I mean permanent planting. All peaches grown under glass, if in tubs, and not ripe by the 20th of June, may with advantage be removed to the open air; if permanently planted the sashes ought to be removed, for a thousand and one reasons. A very important advantage of tub culture is, that, while you secure four, five, or six dozen Peaches from a tub, you get a crop of grapes also. This I suppose is Mr. Hubbard's intention, as I noticed a vine to each rafter and a vine border outside. All praise be to him for this grand beginning. I impatiently wait the spring of 1861. With pleasure I leave this, and bend my steps to Hovey's nursery—this man of seedlings and importation: between the two you always find something *new*. I was a few days too soon for the *Strawberries*. Hovey drew my attention to a new English variety, called Wonderful, and, according to present appearances, a just appellation. It is an immense bearer, and very *hardy*. Sir C. Napier, ditto; and I see by the report in the *Gardener's Chronicle* of the London exhibition, that all others play second fiddle. La Constance also looks very promising;

so does Wilson's Albany; it is unquestionably very hardy, and an immense bearer, but I am afraid the general opinion respecting its flavor is but too true; at all events, this season will decide and define its position. It is a singular fact, that although the Hovey Seedling has been before the public these twenty years, it has not been surpassed by anything; truly this is not in keeping with my motto. I was sorry to hear him say Pears had not set as he had anticipated, though his great avenues of trees looked remarkably healthy. The Hon. M. P. Wilder told me the same doleful tale. The public have, as they ought, very generally responded to his invite to purchase Thuya Hoveyi. Surely it is a treasure, a gem, an invaluable acquisition to ye of the North, although it will not supplant Thuya aurea. Where T. aurea is not hardy it is a glorious substitute. The Japan Lilies looked remarkably healthy in a bed 4½ feet by 70 or 80 long; last year I was fortunate enough to see them in bloom, and was astonished to see how much was accomplished by one step in hybridization; but what struck me most was the hardy robustness of those seedlings compared with old Roseum and Rubrum; indeed, it is what the Shetland pony is to the dray horse. Brydges, in reviewing Lord Byron's "Lament of Tasso," says, "Had Lord Byron written nothing but this, to deny him the praise of a grand poet would have been flagrant injustice or gross stupidity." Now I thank Brydges for furnishing me with a sentence to express my ideas of Hovey and his Lilies: but enough, I have more Boston Jottings, if wanted; and singular enough, though my motto is "Go-ahead," my name is JASPER STANDSTILL.

[We rather think we have you, Jasper, but do not feel quite sure. Suppose you try your hand at "Jotting" again, and let us know what other folk are doing in Boston. The Hovey may be in greater danger than you imagine.—ED.]

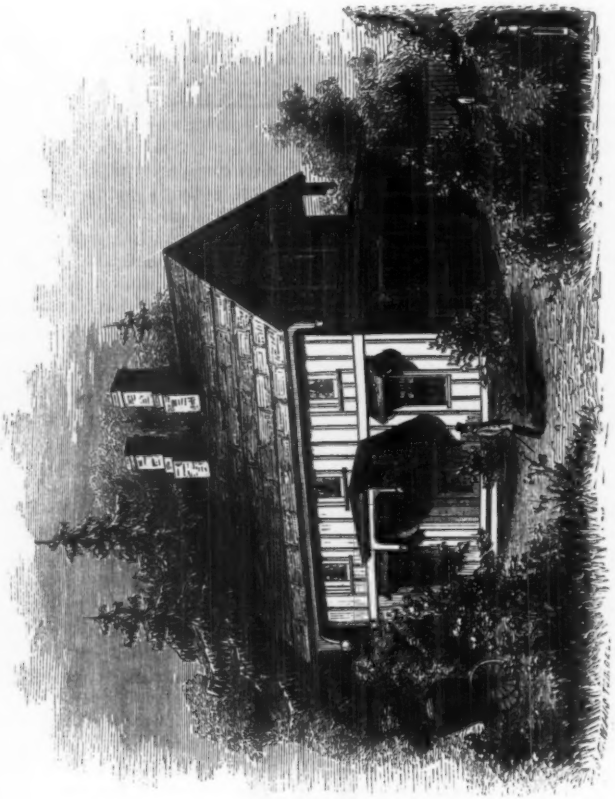
DESIGNS IN RURAL ARCHITECTURE, No. 4.—A SUBURBAN RESIDENCE.

BY GEO. E. HARNEY, LYNN, MASS.

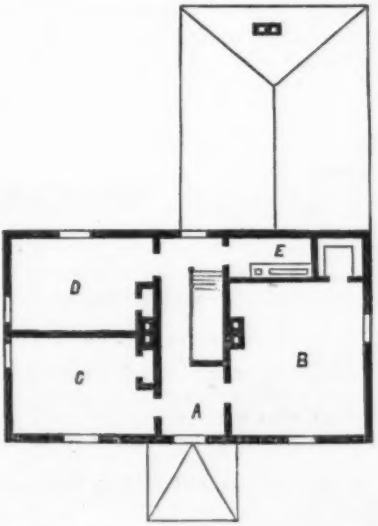
THE design which we here offer, was made for a gentleman in the vicinity of a neighboring city, and, we think, will be found adapted to the wants of many of our suburban builders; combining, as it does, economy with convenience, and having, also, some slight pretensions to ornament in its exterior.

It is to be constructed of wood, and may be covered in the vertical manner with sound inch-and-a-quarter plank, and two-and-a-half-inch battens. The front door is shielded by a broad hood, supported on heavy brackets; all the lower windows have broad plank hoods. The height of the first story is ten feet in the clear, and the second is seven feet high at the plates and ten in the centre of the rooms, the space above serving as a ventilator for the whole house, having ventilating flues opening from the principal apartments.

The interior finish should be plain throughout, the doors and windows having plain architraves with a neat band moulding, and the base being eight inches high with a bevel on top. The walls are to be finished for papering.



A SUBURBAN RESIDENCE.



The arrangement of the plan gives a hall, A, six feet wide, opening on the right into the living-room, B, which measures fourteen by nineteen. This room communicates through a passage, F, with the kitchen, D. The

passage is to have three drawers, with three wide shelves above, and is lighted by a narrow eight-light window. The kitchen is fourteen by sixteen, and has a fire-place, a sink, and two good closets. A door opens into the entry, E, which communicates with the cellar, and opens out upon the portico. It also connects with the parlor, hall, and living-room.

The second floor contains a hall, A, opening into the several chambers, B, C, D, and the bath-room, F. At the right of the bath-room is a large closet, belonging to the chamber, B.

The cost of this house would be about eighteen hundred dollars.

REMARKS ON THE SWEET WILLIAM—DIANTHUS BARBATUS.

BY DANIEL BARKER, GARDENER TO B. K. BLISS, SPRINGFIELD, MASS.

Seldom do we meet with a genus possessing more desirable qualities than the above-named. Sweet Williams are easily grown, profuse flowering, and within the reach of all who possess the means of a single flower bed or border. The treatment required by them may be summed up in a few words:

During winter—in the eastern and middle States—it is best to plunge them in tanner's bark in a cold frame, preserving them from frost. About the middle of April, or as soon as the weather permits, they may be planted out in the flower-beds or borders, or in masses, where they will be very attractive during the summer months.

Nowhere have I seen these gay and beautiful flowers so extensively cultivated as their merits justly deserve. Numbering among them so many splendid varieties, they are a most decided acquisition to the flower-garden; flowering early in the season, and bearing a succession of large corymbose heads of blossoms of great variety in marking and tints. The desideratum of the European florists for the past few years has been to improve upon the old garden varieties of Sweet Williams, and to produce the finest shaped flowers, approximating as closely as possible to the ideal standard of perfection, and to have the largest corymbs or trusses that can be obtained.

To Mr. Hunt, of Wycombe, England, honor is due for raising the character of the Sweet William from a coarse, small, and almost worthless flower to very near perfection; and with care the improvement will still go on, and the present superb varieties will be surpassed in every particular.

The inclosed specimens are all of the new and improved varieties, now blooming for the first time at the establishment of B. K. Bliss. By comparing them with the older varieties, the improvement will be most striking.

The following brief descriptive remarks upon a few of the best varieties now flowering here may be useful, and can be relied on, having been made from the flowers when in the best condition.

Miranda.—Rich velvety crimson, with conspicuous pure white margin; strikingly distinct habit, and form very fine.

Julia.—Rich violet purple, with a bold and well-defined white margin; a remarkably free and beautiful variety.

Rosalind.—Rich violet purple, with a large and well-defined pure white margin; a wonderfully large truss, and excellent habit.

Olivia.—Rosy red, with a rich crimson centre ; a well-formed flower, and of fine habit.

Helena.—Rich crimson and white, with a large pure white margin ; habit good, forming a close, compact mass of flowers.

Cressida.—Rich rosy purple, mottled with white ; margin pure white ; habit dwarf and very compact.

Ophelia.—A beautiful carmine, with fine white margin, fine habit and truss, and profuse bloomer.

Desdemona.—A beautiful soft violet purple, with pale centre and well-defined white margin ; truss very large and well-formed ; a most profuse bloomer.

Virgilia.—Rich red crimson centre, with a fine large, picturesque white eye, and pure white margin : a beautifully formed flower.

Beatrice.—Rich velvety carmine centre, with a rose-colored eye, and well-defined white centre; a very fine and beautiful variety.

Lucinda.—Rosy purple centre, with a large, conspicuous light eye ; margin of the purest white ; an extra large, well-formed flower, and elegant habit.

Titania.—A delicately beautiful combination of rich violet purple and deep purple, with a conspicuous white eye and broad margin of pure white ; fine form and truss, and excellent habit.

[The specimens of the above came to hand in good condition. We have compared them with the descriptions, and find the latter to be accurate. Some of the varieties are not as distinct as could be desired, but they are a decided improvement upon those of "ye olden time." They are all very pretty, but the best and most distinct are the following : Miranda, Julia, Rosalind, Olivia, Cressida, Ophelia, Desdemona, and Titania. Miranda is very beautiful, and the best of the lot. Unless these new kinds are much more tender than the old ones, the winter protection recommended by Mr. B. would hardly be needed in the Middle States. The necessity for protection would deter a good many from growing them, and we hope it will not be needed. —Ed.]

SUNDRIES—No. 2.

BY A BUFFALONIAN.

With your permission, Mr. Editor, I will continue my remarks upon articles in the last volume, (14th) Page 443, "Fruit-trees in ornamental plantations." That some fruit-bearing trees may be rendered very ornamental as well as useful objects, is not to be questioned, and I might mention varieties which are really more beautiful in form and foliage than many of the so-called "ornamental trees ;" still I do not quite like the idea of planting them for ornament, except in grounds of very limited extent, preferring that each class be assigned to its appropriate place, either on the lawn or in the orchard.

In small premises it is an object, of course, to have a tree fulfil both purposes ; and not only that, but a fruit-tree planted near a building may be sometimes advanced or retarded (according to the exposure) in its time of ripening its fruit. For example, a cherry-tree near my own window is so

situated, that a part of its top directly faces, and, indeed, some branches lie against a high and steep roof, with a south-western exposure. In consequence, the fruit upon those branches is not unfrequently ripe by the 21st to 25th of June, while on other trees (and, indeed, the lower branches of the same tree) the same variety—White Bigarreau—is not often ripe much before the 1st of July.

I think Mr. Saunders in error in proposing to plant apple-trees nearer together than is the usual practice. He thinks that forty feet is an unnecessarily long interval—I do not; pears, I admit, may be planted at twenty or twenty-five feet, and do well for many years; but I have had some experience with a small apple-orchard, closely planted, and find that the lower branches, which will soon interlace at much less than forty feet, are constantly dying out, and on those which remain the fruit is small and inferior.

Sometimes we find the lawn and the orchard reversed, as is the case with those of a neighbor of mine, a gentleman of more wealth than taste, but who has a fine grapery and a beautiful lawn. In that part of the latter directly contiguous to the front entrance, he has several cherry-trees, intermixed with ornamental trees of various kinds, while in a lot at the *rear* of his house, he some years since made a plantation of *maples*, disposed in parallel lines, at accurate intervals, in the same way that he would have planted an apple-orchard.

(506.) "*The curculio the cause of the plum warts.*"—This theory, which I have thought fallacious, appears to be so distinctly proved by the observations of Miss Morris, that I feel almost compelled to give in my adhesion to her views. Perfectly aware of the fact that the curculio and other insects were to be found in the swellings, I imagined that they were the effect, not the cause, and had taken up their abode there, merely because they found a convenient lodging. The late Mr. Downing, I believe, entertained this view of the case, while Profs. Peck and Harris held the opinion which is adhered to by Miss Morris.

It is rather satisfactory than otherwise to find, (if it is so,) that the same villainous little insect is the cause of both the chief ills that the plum seems heir to, for it is certainly better to fight one enemy than two or more; and I believe for one, that if all plum-growers would, for three or four seasons, persistently and thoroughly employ the sheet and mallet, we should have little cause either to fear or dread the depredations of the curculio, or rhynchœnus, hereafter.

Messrs. Ellwanger and Barry are perfectly successful in preserving their plums in this manner. I had the pleasure of meeting the late editor at their place, upon the occasion which he so pleasantly mentions, (at page 483,) and I certainly never saw such a magnificent crop of plums as was just then at maturity upon their trees. I have tried, and seen tried, various other preventives, such as lime, netting, pigs, poultry, etc., but have faith in nothing but *shaking and killing*. A war of extermination is only to be relied upon, and at any other game the rhynchœnus will be pretty certain to beat.

(510.) "*Notes on Pears*," &c.—Prof. Coppock is a close observer, and his statements are valuable; some of them I can corroborate, having had various opportunities of seeing (*and tasting*) the results of his experiments. That with the Vicar of Winkfield was wonderfully successful, and I was greatly surprised on eating a specimen, to find that a pear of which I had

never before found one that I considered fit to eat, *could* be so exeedingly fine. —In regard to the Columbia, I have had very fine specimens which were of fair quality, although rather wanting in high flavor, but of late I find it to *crack*.

(512.) *Country Houses.*—I like irregular houses. To my mind they are not only more convenient, but also more beautiful than regular ones. They possess this important advantage, that you can lay out your ground plan with an eye to convenience and comfort alone, and then build the house in accordance with it, while in a square house you are bounded by a stern and uncompromising rectangle, which will not permit you to take any liberties with its uniformity by projecting a conservatory here, a library there, or a dining or drawing-room somewhere else.

It is one of the rarest things in this world to find two people who have precisely the same ideas concerning a house; it is therefore wise to furnish various plans and designs, in order that, if not all, many may be suited; but I am greatly in favor of irregularly planned buildings, particularly out of town. It is undoubtedly cheaper to build in a square form, but you lose so much in beauty and convenience, that I would prefer to retrench in some other way, either by reducing the size of the building, or expending less upon the interior finish.

(524.) "*Delaware Grapes found in three different locations, in a wild state.*"—This is pretty strong evidence in favor of the American origin of this fine fruit. Does the opposing party give it up yet? Some genius has been lately trying to prove that the Isabella is a foreign sort too. I wonder if we *have* any *native fruits*.

(564.) "*Pruning Grapes.*"—I give it up, and admit that Mr. Saunders has the best of the argument, for if a vine is not "enfeebled" after nearly fifty years of annual cutting down, I see no reason to fear that such will be the case afterwards. I used, too, in my remarks upon Mr. Saunders' article, the word "annually" instead of "biennially," (which was of course the proper one,) and ask the forgiveness of Mr. S. for the inadvertence which gave a wrong interpretation to his remarks.

(575.) "*Fruit-Gatherer.*"—I conceive that with the substitution of a hose of cloth (as recommended in one of the early volumes) for the net, which possesses several important disadvantages, this instrument would be more effective than any that have yet been described. In my younger days, when my pomological taste was rapidly developing itself, I, having discovered that the finest apples and pears usually grew out of convenient reach, converted a fishing-pole and a broken table-fork into an apparatus for the better securing such specimens. It operated well, so far as detaching the fruit from the tree; but as its safety then depended upon my dexterity in catching it before reaching the ground, I sometimes found that a failure in this particular had made of a very ripe apple a complete *squash*—a "transmutation of varieties" by no means to be desired.

The net is unwieldy if partially filled with fruit, and terribly awkward and inconvenient to reverse and unload each specimen singly, besides the length of time required by the operation. With a low-headed tree, and a ten foot standing-ladder, such contrivances are rarely required, very few specimens escaping the hand of the operator.

[We think "a Buffalonian" might continue his remarks profitably, and we should be glad to have him do so.—Ed.]

PRESERVING SHADE TREES.

BY H., COLUMBUS, OHIO.

Aware of the interest you take in the subject of ornamental shade trees, I wish to call attention, or rather to draw out from yourself or your correspondents, some information in regard to the best means of preserving them in a sound, healthy condition. I have noticed here, and in other places, a commendable zeal in planting shade trees in the streets; but unfortunately, in many cases, the zeal seems to abate with the mere planting and protecting with some sort of rough box. The trees grow perhaps for a year or two, until they throw out considerable foliage, and then the winds swaying the tops, the trunks are so rubbed against the tops of the boxes that the bark, and sometimes a part of the wood, is worn off, leaving a wound which, though it does not immediately kill the tree, leaves a permanent defect, at which in a few years some unusual wind or storm twists it off. Now can not some remedy be found for this evil? That it is a very serious evil, must be apparent to every lover of trees in our towns and villages. In this city we have, I suppose, four thousand shade trees, and I doubt very much if there are five hundred that are not more or less damaged by abrasion, and most of them fatally for any considerable age. And what is true here my observation leads me to believe is true in other places. Hence I think it is an important question, What can be done to save the trees? I think the great desideratum is the right kind of a box; one that is cheap, durable, and as ornamental as may be, with some arrangement attached to prevent injury to the tree from rubbing of the trunk, and so made also as to give free admission of air and light. Could not one of iron be made to fill these conditions? Wrought iron would, I think, be best. Let us have the subject discussed, and I have no doubt the genius of our mechanics will suggest the remedy. Designs for a good cheap box, and also for one more costly and ornamental, are wanted.

[The chief object of a box is to protect, and not to support a tree; the support it affords a tree while young is of little moment. We think a box made in two pieces, connected with an elastic hinge or cord, with a series of rollers at top and bottom, would answer the purpose. Such a box would not, of course, be inserted in the ground, but would be held to the body of the tree by the elastic cords, which would yield with the growth of the tree. Protection would thus be afforded and abrasion avoided. We will explain this more fully hereafter with a drawing. In the mean time, some of our readers may have something to suggest. The evil complained of is quite as great as H. represents it.—Ed.]

THE SPOTTISWOODE RAT-TAIL RADISH.

BY GEORGE LAWSON, PH. D.,

Professor of Chemistry and Natural History in the University of Queen's College, Kingston, Canada.

In the Horticulturist for July, (vol. xv., p. 308,) you reprint from the *Revue Horticole* an article detailing M. Courtois Gerard's success in the introduction to France of what is inappropriately termed the *Madras* Radish.

THE SPOTTISWOODE RAT-TAIL RADISH.

It appears from that article and the note appended thereto, that French and American Horticulturists are not aware that this delicious vegetable has been in successful cultivation for several years, by various persons in Britain, and by myself in Canada. The plant is a native of Java, and appears to have been cultivated in some parts of India for a considerable time, particularly in the neighborhood of Benares. However, in the recent Enumeration of Indigenous and Useful Plants—"*Hortus Madraspatensis*'—prepared by my friend Dr. Cleghorn, Professor of Botany at Madras, this plant is not referred to. The name Madras Radish must therefore be dropped, having probably originated in some error. Its introduction to Europe resulted from a conversation which I had some years ago with Mrs. Colonel Spottiswoode, of Benares, who accordingly forwarded seeds from that place to Professor Balfour, of Edinburgh, under whose care and that of Mr. McNab, the plant was successfully reared in the Edinburgh Botanic Garden. To these gentlemen I am indebted for the seeds, whence my small Canadian stock has been raised. The following notice was inserted in the edition of Chambers's Information for the People, published in 1857, the horticultural parts of which I was requested to revise :

"SPOTTISWOODE'S RAT-TAIL RADISH.—In 1856 a remarkable kind of Radish was raised in the Edinburgh Botanic Garden, from seeds sent from India by Mrs. Colonel Spottiswoode. It is called the Rat-Tail Radish, and the edible part, or "radish," is not the root, but the seed-pod in a green state. When sown early it produces a very abundant crop, and is well suited to the climate of Britain. The young plants require to be thinned out to a foot or more apart, in rows of about two feet, and plentifully supplied with water during dry weather. The radishes or pods of this plant are very delicate, and well adapted for salad."—*Cham. Inf. Peop.*, vol. i., p. 537.

I shall not on the present occasion occupy your space with a lengthy detail of the history and uses of this plant. A series of experiments at present in progress may possibly throw some light on disputed points, and these shall be reported in due time. I wish now, however, to state that I regard it as one of the most valuable vegetables that have been introduced for many years. The pods have a peculiar pungent yet delicate flavor, are perfectly succulent, and may be used either as a salad or to form a pickle. In all forms the ladies say they are "delicious." I doubt not it will in time displace the root radishes, being much more palatable, and affording a greater yield.

Notwithstanding the opinions expressed by the writers in the *Revue Horticole*, I believe the plant to be identical with *Raphanus caudatus*. The French horticulturists seem to find their pods comparatively short, while those of *R. caudatus* are described by botanists as three or four feet in length. It must be observed, however, that there are many varieties of the Rat-tail Radish, varying in the length of their pods, and that a good stock is only obtained by carefully saving seed from the very long, attenuated-podded sorts. The accompanying drawing shows a pod of the natural size when fit to eat or pickle ; but they become much larger as they ripen, and on my plants at present there are pods not yet too old for use, which are several inches longer than the one figured. In good varieties the pods are not erect, as described in last month's paper, but gracefully pendent and curved, as I have endeavored to show in the figure. Fourteen or fifteen inches is a good length for the pods in Canada or the States. In warmer

climates they will no doubt grow much longer under good management, and even here I do not despair of ultimately obtaining pods that will approach De Candolle's description: "Siliqua tota planta longior, imo 4–5 pedalis," &c. I am sorry to see the *root* referred to as edible. In the true large-podded varieties it is quite worthless. The crop must be grown for the pods alone. The leaves, however, when very young, are succulent and edible, and have the same flavor as the pods.

[We are much obliged to Prof. Lawson for his instructive and interesting article. He not only establishes the true name of this Radish, but gives it a value as an esculent which will make it widely sought. What we have seen of it thus far would lead us to concur in all that the Professor has said. We shall know more of it as the season progresses.—Ed.]

ORCHARD HOUSES.

BY DR. G. PEPPER NORRIS, WILMINGTON, DEL.

The most complete establishment for this system of culture that it has yet been our good fortune to see is in the grounds of Wm. Beech Lawrence, Esq., at Newport, Rhode Island, and under the care of Mr. Alfred Chamberlain. The house is a lean-to, 300 feet long, built in the best and most substantial manner, back and front walls of stone, back wall 12 feet high and front 5 feet, (two feet stone arch, and front glass ventilators, 3½ feet by 3 feet;) the house is 13½ feet wide, the trees in pots being grown in a pit five feet high and seven feet wide, the larger pots being placed nearer the back; the roof is made of seven-by-nine extra thick horticultural glass; the ventilation in the roof is effected by means of 3½ feet by 3 feet sliding sash; these, as well as the front ventilators, in which the glass is larger, are worked by means of an iron crank—an ingenious invention of Mr. Chamberlain, which for completeness and simplicity exceeds anything that we know of. The entire house is heated by hot water pipes, with one of Wethered & Chervoy's patent furnaces, and is divided by glass partitions into sections of thirty feet; the floor is paved with brick, and around the pits are shelves for the smaller trees, together with a shelf eighteen inches from the roof, on which it is proposed to stand some 600 strawberry pots; thus bringing into use all the available space, at the same time furnishing the necessary facilities for approaching each tree. The first and second divisions are intended for growing pineapples; in the third are 200 pear-trees, in various sized pots: here are Doyenné d'Eté, Duchesse d'Angoulême, Louise Bonne de Jersey, Tyson, and I know not how many other varieties, all on the quince; on some there was a fair show of fruit, although only potted last October. The size of the pots varies from eleven to fourteen inches, the first-mentioned size being esteemed most desirable, but with many of the trees it was found impossible to cut away enough of the roots for an eleven-inch pot without endangering the tree; it is Mr. Chamberlain' sintention to use eleven-inch pots altogether. A noticeable feature was, that the aperture at the bottom of the pot was permitted to remain of the usual size, and not enlarged according to Mr. Rivers's directions. The trees were all well mulched with moss, and have made a fine growth. The pears are carefully pinched in every

five weeks. Water is given every other day, and the syringe used daily in the evening, an abundance of air being permitted at all times. The next division embraces the peaches, of which there are 260 pots making a most luxuriant growth; here are to be seen peach-trees growing in wire-baskets, surrounded with moss and trained in every imaginable shape.

Mr. Chamberlain is entitled to the credit of having been the first to grow trees in hanging baskets; some of the peach-trees are trained as espaliers over the back walk. The same treatment is given them as the pears, except that they are left unpinched, the pinching off of the terminal buds having been found to burst the fruit-buds and destroy the prospect of the next season's crop: the branches are intended to be tied down, and the tree made to assume a pyramidal shape.

In the next apartment we find 200 cherries, 100 apricots, and 60 plums, all freely pinched in, and trained into pyramidal shapes. A number of apples on the Paradise, in eight-inch pots, together with figs and strawberries, complete the assortment; but as curiosities, currants, raspberries, and even filberts are found cultivated in pots. The varieties of strawberry to which the preference is given, are Boston Pine, Wilson's Albany, Jenny Lind, and Scott's Seedling. On the back wall are the potting room and the pot rooms for keeping the pots together, with rooms for assistant gardeners, and mushroom pits. The mushroom spawn is procured from a New York house, and grown in the dark: about six weeks after planting, the mushrooms are ready for market, and the demand is good.

A number of turtles and frogs are kept among the pot trees, and are found exceedingly useful in devouring numerous insects. The arrangements for watering are very complete, and force pumps and hose so introduced that no tree is likely to be overlooked.

In the greenhouse were found a number of Bananas just imported from Cuba, in fourteen-inch pots, ready for forcing. The fruit is intended to be forced, and under Mr. Chamberlain's care we should have no fear of the crop, he having had the benefit of two years' experience with Mr. Thomas Rivers, of Sawbridgeworth, England. The cost of his buildings was about ten thousand dollars.

[Dr. Norris has moved the spirit within us by his account of Mr. Lawrence's Orchard House, and we are strongly tempted to go to Newport to see it. It must be a grand affair.—Ed.]

ROSE-COLORED CHINESE WINTER RADISH.

(See Frontispiece.)

BY THE EDITOR.

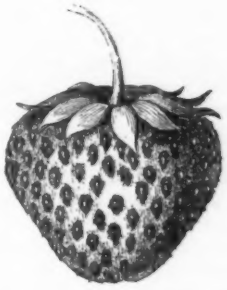
According to the *Floré des Serres*, this handsome radish was brought to notice in Europe by the Abbé Voisin. We procured some seed of it from Commodore Perry just after his return from Japan, whence he brought it. We have since grown it to the neglect of the common Black and White Spanish, preferring it to either. It is a very pretty radish, and our *frontispiece* is a faithful representation of it, except that it should be a shade lighter. It grows to a good size, is firm-fleshed, and almost as mild as the

common spring radish; though we are inclined to think its mildness will vary somewhat in different soils. It is somewhat difficult to pull, as nearly the whole root grows beneath the surface. The seed may be sown any time during the month of August, and the root is edible from the time it is about half grown. The young plants should be thinned out, so as to stand some four or five inches apart. The mature roots should be taken up on the approach of frost, and placed in the cellar, where they will keep till spring. The seed of this radish is now advertised by some of our principal seedsmen, and it is well worthy of a place in the garden.

THE AUSTIN STRAWBERRY.

BY THE EDITOR.

A FEW days after penning our statement respecting the Austin Strawberry last month, a large plate of it was placed on our "table," and we continued to receive samples of it from time to time up to the 14th of July; a somewhat prolonged season, during which we had abundant opportunities to judge of its merits. It did not equal our expectations in point of size; but we are informed that it is not so large this season as it was last, which must be owing to its treatment, since the present season has been a favorable one for large berries. Our engraving was taken from one of the largest



berries we could find. In regard to its productiveness we can say little, having seen only a few plants of it, producing from twenty-five to thirty berries each. It is a large, vigorous plant, with a stout, upright fruit stalk, the leaves, however, being rather narrow. The following is our description: *Fruit* large, varying in form from roundish to conical, sometimes flat, occasionally necked, and uniformly with a large core. *Color* pale scarlet. *Seed* brown, slightly imbedded. *Flesh* white, somewhat soft and dry, acid, and deficient in high flavor. *Calyx* large, many parted, and persistent. *Flowers* staminate. We have no doubt that it is a seedling of the Iowa.

CELERY—TO GROW AND PRESERVE THROUGH WINTER.

BY FOX MEADOW.

Mr. Editor: I have often found it difficult to preserve this vegetable through the winter, and have no doubt that others have too. We have often grown it very fine in trenches or single rows, and then in the fall of the year, just before hard frost comes, taken it up and placed it in a cellar, in rows, and covered it with sand or earth; but it invariably failed to be good for much through the winter, either tough and stringy, or rotten, especially the latter, if it got a little frost on it previous to taking it up in the fall.

Now repeated failures make what some people call good practical gardeners; but we think it makes experienced gardeners, if we do happen to get it at some one else's expense. We presume every one knows how to grow celery, therefore it will be useless to talk about that which is already known. We called the other day upon a friend of ours who is a stirring amateur, reads every letter of the Horticulturist, and several other periodicals into the bargain, including the world-renowned "Gardener's Monthly." *He had got a new idea.* "Good," I replied. "Well," said he, "come and see my celery plot. There, that is on a new and scientific plan. Do *you* ever read the Horticulturist?" he inquired. "Sometimes," said I, "when the post-office department *thinks proper* to send it me." "Well, sir, *this* is what they call the '*Flat culture*' system. What do you think of it?" "Think it is a very appropriate name for *this you* have been doing." "There, that is just like all you professional men, always laughing at us amateurs. You think you *know enough*, without reading and properly studying an article to understand its theory or philosophy. Now I know you have not read that article on *Flat Culture*, or else you would not laugh so. You see the philosophy is good—a labor-saving principle—a dollar-saving principle—a principle by which these celery plants can grow and be supplied with water in the hottest and dryest weather. Here is the advantage derived from science over our common plodding practice". "Ah, I was not aware of this." "I *thought* so. You see, the philosophy is this:

"The leaves of plants condense the moisture of the atmosphere, and in different modes shed it on the ground, but principally by means of the stalk, that is, the water runs down the stalk to the root; but if you *ridge up* the earth around the stalk, of course the water is thrown off." "Where to?" "Anywhere. It can't get to the roots if there is a ridge of earth on each side of it"

"*Oh, I did not know.* Well, sir, you have not shown me yet where the great amount of *saving* is made." "True: you know the old-fashioned way of digging trenches and filling them with manure, etc., and the constant bother of earthing up with soil, to have it all froze down and become rotten some day. Again: the absurdity of earthing up the celery all the time it is growing, to keep it eternally dry, when it is said that the plant originally belonged to the bogs and quagmires, which naturally suggests a plentiful supply of water rather than barn-yard manure; so upon this principle I have selected this good piece of ground, dug it up well, put in no manure, made the ground perfectly '*Flat*,' planted the celery out in rows two feet apart, and don't intend to earth up at all; and when the plants do not condense

water enough from the atmosphere to supply their needy wants, you see, under this '*Flat system,*' why we can pour on them, or over them, just so much as we please. Here is where the money is saved—no manure—no ridging up." "But about the blanching?"

"Oh, take it all up and keep it in a dark cellar, and it will soon turn white enough for use. But *you* do things rather different from most people. How do you do it? Old ridge, though, I suppose."

"Not just that, for I agree with you or your theory in several points. First, then, it is true that celery is half an aquatic. In the second place, the earthing up keeps it dry, or rather prevents water being applied artificially to the root; and in the third place it prevents the foliage and stems from fulfilling their natural offices, condensation, absorption, &c., which is highly requisite to increase the size of the stem, which forms the bulk of the plant.

"All this is rational logic; but when you advance the theory of the farmer who manured all his farm by a *special fertilizer* he carried in his waistcoat pocket, I also believe you will be like him in bringing home all the crops in the other. But I will compromise this matter with you in relation to growing celery. First, then, to prepare a bed, we measure off, say six to twelve feet wide, and run this width as long as convenient; then throw out on each side the soil to the depth of six to nine inches, and fill up the trench nearly to its surface with thoroughly decomposed manure, and start at one end and thoroughly incorporate soil and manure together; plant out the plants say nine inches by twelve on this surface, and thoroughly soak the whole with water; if the weather is very hot, shade for a few days. Now I want you to understand the process that is to follow this, and adopt it at once, for we are about publishing this THEORY, *and of course it will be copy righted,* and can not be afterwards used without special permission:

"Form an embankment twelve inches high all around this trench, and keep it constantly saturated with water. If manure water, so much the better. Have not got it? Then put guano in the water and make it; for depend upon it, 'Good things come out of good conditions.' As the plants grow, keep them loosely tied up with bass matting, and rub off all the young suckers that grow out at the base of the leaves. The very small leaves or stems at the bottom of the plant, should be taken off also; this facilitates the removal, and enables you to watch the growth of suckers, which if left on waste the substance and deteriorate the growth. You will remember the *trench must not be allowed to become dry.* It should be always like what the little boys call '*puddle.*' If proper attention is paid to this point, and also to planting it out early, celery can be grown to a very large size before the month of November. It should not be earthed up at all till about three weeks before it is required for use. Four weeks' time at the utmost, will blanch it as white as a lily. In order to blanch it, of course the soil from the sides is thrown between the plants and nearly up to the tops of the leaves. So soon as the leaves fall from the trees, we collect them and cover these beds *entirely all over,* about twelve or eighteen inches thick, placing over them a few corn-stalks to prevent the wind blowing the leaves away. From these beds you can dig *sweet, crisp* celery all the winter; not a particle of frost near it; and in April and May we often see the white stems pushing up through the leaves far better in every respect than any celery you can get in the fall. We have seen single sticks of celery grown his way, after being washed and dressed for table, weigh EIGHT POUNDS"!

"You have?" "Yes, sir." "Well, I will tell the Editor of the HORTICULTURIST that the first time I see him."

[We take peculiar pleasure in recording the above as the "first fruits" of our article on "Flat Culture." Growing Celery in this way had not occurred to us; but its advantages, to our apprehension, are manifest and decided, and we shall make a bed accordingly. Fox Meadow did just right in coming to the editor, and telling him all about it, for in this way he has told it to thousands. A good spirit moved him then, whatever kind of spirit may move him at other times. And then, too, the humor; that, certainly, is not on the *flat* system!—ED.]

A BEAUTIFUL HOME.

BY R. G. PARDEE.

THE eastern bank of the Hudson River, for many miles above New York, is lined with hundreds of splendid country seats, adorned with skill, taste, and wealth. Occasionally we find one surrounded with many fair acres; but, for the most part, the choice places are adjacent to flourishing villages, and ordinarily comprise not more than an acre or two. The fact is quite apparent, that the people of this country have generally too much land for their pleasure-grounds; more land, in fact, than taste and skill; and there is many a man who could honor himself in the care of a small place, that would as surely dishonor himself in his awkward attempts to conduct a large one.

It was my good fortune to visit one of these smaller villas about the middle of June, which I think deserves an honorable mention. It includes scarcely more than two acres of what was formerly an abrupt, nearly useless side hill, and yet in a few years it has been so intelligently and so thoroughly improved, that now it is one of the finest of those gem residences on the noble Hudson. Here my excellent friend spends his intervals of an active business in the bosom of his happy family.

If attraction thrown around one's own home is, as is said to be, a bid for children to remain at home, as a lavish expenditure on dress and equipage is said to be to go abroad, then the investment is a good one, and he will have the gratification of winning his little boys and girls from the excitements of the gay city, the club-house, or the giddy dance; for I hardly know a single country seat of any size this side of *Henry W. Sargent's, of Wodenethe,* that has so many well-selected, rare, and beautiful plants to adorn the grounds.

For the last six or eight years he has added every spring the most liberal collections from our best catalogues, and last fall I told him I thought he had so well filled his grounds that he could afford to rest on his laurels for a year or two. But no: this spring he presents large invoices from Europe of rarer and more costly plants than before, and he has made abundant room for them all. A few words as to the manner by which this was done.

On one or two of the abrupt terraces, in little nooks around the summer-houses, he has elaborated the finest specimens of rock work that it has been my fortune to see in this country. In a marvellously small space of ground he has provided sittings for three thousand plants, and already those seats are pretty well occupied.

A part of the rock work was arranged for plants that love the deep, dense shade; a little further on a little sunlight was admitted, while further along still it was arranged for the bright children of the sun—for such as could luxuriate in his densest rays. One portion of the soil was deep and rich, adapted to plants that love such liberal treatment; another portion not so rich or so deep, and another part with only a little leaf mould and rock crevice for such as are content with that rare supply.

I cannot undertake to enumerate the plants I saw, or even the rarest, but as a somewhat liberal list may be desirable in this connection, I will say that I admired the fine healthy specimens of Farfugium grande, Berberis Darwinii, Japan Berberry, Bambusa falcata or Himalayan Bamboo, Double White and Yellow Furze, Clematis viticella, venosa, and purpurea, and Clematis lanugenosa pallida, Chusan Palm, Alpine Pinks, Campanula alpini, Sempervirens (4 var.), Sedums in var., Itea Virginica, Spergula pilifera, Silver-striped and Gold Privet, New Zealand Flax, Saxifrages, Variegated Juniper, Prince Albert Yew or Cephalotaxus Fortunii, Stauntonia latifolia, Skimmea Japonica, Pampas Grass, Solidagos, Alyssum saxatile with variegated leaves, Aconitum pyrenæum, Aquiligea in var., Asperula odoratus, Cornus, Canadensis, Coronilla minima, Draba eizoides, Epimedium alpinium, Gentiana acaulii, Gypsophila prostrata and elegans, Lychnis in var., Oxalis floribunda and rosea, Saponaria, Silene in var., Thymus azureus, Veronica montana and saxatilis, Spiræa ulmaria variegata, Vincas, etc.

From the wild woods around here I saw he had gathered fine specimens of Ferns, Violets, Columbines, Blood Root, Mosses, Arums, etc. In the basin of one of the ledges of rock work, he has prepared a nice Garden Aquarium, filled with aquatic plants, fishes, etc., with the water running through it. I have made my list so long that I will not speak of the abundance of healthy fruit-trees, grape-vines, and shrubs, well selected, well trained, and well pruned, which I saw, neither will I enumerate the choice evergreens, trees, and plants which adorn this beautiful place. But I must refer briefly to the large fine borders of magnificent Rhododendrons, Azaleas, Andromedas, Hollies, etc., in great variety and beauty, which lie beneath the large, beautiful Tulip Trees and the Oaks, the Hickory and the Chestnut, on the lawns. Few seem to be aware as yet of the splendor of those shrubs when well cultivated in the shade, in a deep border of sand and leaf mould in equal parts.

On the lawns, besides a variety of weeping and variegated trees and plants, I saw a fine large specimen of the *Silver-striped Turkey Oak*, probably the handsomest in the country; also the Variegated Holly, and the Laurel-leaved, Scotch, American, and English Holly, and the Myrtle-leaved Kalmia. The new Variegated Ivy, the Variegated Cedar, Gold and Silver-striped Chestnut, Variegated Elder and Ash, True Ligustrum Japonica, etc., etc. But I forbear. I think I have by this time at least demonstrated that a small place well tilled is better by far than a large place indifferently cultivated.

CHICCORY—ITS CULTIVATION AND ITS USES.

BY F. A. NAUTS, NEW YORK.

Chiccory, Succory, or wild Endive, (Chicorium intybus,) is a perennial plant, with a large, very long, simple tap-root. The first year it produces

only numerous radical leaves, six to eighteen inches long, two to four inches broad, narrower at the base, and serrated more or less. In the spring of the second year, a stalk shoots from the centre of the leaves, three to six feet high, with smaller leaves than the radical ones, branching, and bearing in the axilla of the small leaves pale blue, as well as azure-blue flowers, about three-quarters of an inch large. These flowers bloom successively for a long time every morning, and shut before noon. To these succeed oblong seeds, surmounted with a little scarious crown, and contained to the number of fifteen to eighteen in a common calice. It grows well on almost all soils, but particularly in those of a light sandy loam, the deeper the better, for in such the roots will attain the largest size.

The roots and leaves of chiccory have been used in medicine, as tonics and depuratives, to reëstablish the appetite, promote diuretic action, &c. In Europe it is much cultivated in gardens for its leaves, which are in great request to eat as a salad, when young, and for which purpose the roots are taken up and planted in barrels or boxes in a cellar, where the leaves that shoot out of the crown become white, etiolated, and very crisp and tender.

This plant makes a most valuable fodder, which cows, horses, mules, oxen, or sheep eat readily, and it is largely cultivated for that purpose, to be eaten as a green fodder, particularly by cows. For this purpose it is sown in the spring, after a good plowing, broadcast with oats, at the rate of four or five pounds to the acre, so that the leaves speedily cover the ground and smother the weeds, and by which the leaves are mutually held upright, so as to be easily mown. The seed can be sown in the fall as well, but then the plants are apt to shoot to seed the next spring before the roots have got a large size, and the crop of leaves is smaller. That sown in the spring will give two to three cuttings the first year from July until winter, and four to six cuttings the next year, and produce at each cutting about a ton of excellent fodder; or it can be pastured. It will shoot up after each mowing, no matter how dry the season may be; and no plant will bring so large an amount of fodder per acre, except perhaps Lucerne, which is more difficult as to quality of soil and culture.

But chiccory is much cultivated in Europe chiefly for the roots, which constitute its most valuable use, and for this purpose they should be taken up at the end of the second year; as the object is to obtain the largest roots, a good deep soil should be chosen, and the seed sown thinner than for fodder; or in drills six to eight or twelve inches apart, so as to hoe and weed them the better, in order that the roots may acquire their greatest dimensions.

A few years ago I took up some roots that had been growing for three years in a light, sandy, deep soil, not manured, that were about three feet long, and at the collar as thick as my wrist; one acre of such roots would produce at the rate of nearly fifty tons.

Thus when it is intended to raise chiccory for its roots, for making the CHICCORY or SUCCORY of commerce, they should be taken up at the end of the second year, cutting or mowing off the leaves first at the collar; and as chiccory is not affected by the frost, they can be left in the ground as long as the open state of the winter will permit; or when it is feared that the severity of the winter would prevent the free taking up of the roots, they can be taken up at the end of the fall and stored in sand, from which they can be obtained at all times during the winter. When taken up they must

be washed, dried, then sliced in pieces, and roasted in an oven, till they acquire the color of roasted coffee or chocolate, and become brittle; they are then ground fine, packed in rolls or squares of paper, containing from one half to one pound each, or packed loose in barrels or casks. In the drying and roasting the fresh roots will lose twenty-five to thirty per cent.

Let us now suppose one acre to produce at the end of two years twenty tons of roots, or 40,000 lbs.; the loss by drying and roasting thirty per cent.; this will leave a net produce of 28,000 lbs., which, at 2½ cents per pound, wholesale price, will bring $700. By deducting for all expenses of seed, labor of plowing, harrowing, sowing, taking up roots, interest on land, washing, drying, roasting, grinding, packing, labels, casks, carting, etc., the sum of $150, which is rather a large estimate, it still would leave a profit of $550 per acre, independent of the fodder obtained for two years, worth between sixty to seventy dollars at least.

Chiccory has been for many years, and is now, extensively imported into the United States from Belgium, France, Germany, &c., and is much used here to mix with coffee in different proportions; some mixing one fourth, while most mix one half, and some use it exclusively as coffee; the use of it is now become universal, and the importations of it increasing.

It abounds in a bitter juice, possessing a tonic property, and has a distinct smell of liquorice; its empyreumatic volatile oil, evolved during the roasting, exerts upon the system a diuretic and gently exciting influence, and reëstablishes the appetite; taken in moderation, it is perfectly wholesome.

I shall be glad to impart any additional particulars that may be required.

[We do not believe in adulterations of any kind, though chiccory is one of the most innocent. It is grown among us at present chiefly as a salad. It is now, however, so largely in demand, that in many sections it might be extensively grown with profit, and is therefore worthy of attention as a farm crop. We should not, however, expect to realize the sums above named.—Ed.]

WILD FLOWERS—THEIR CULTIVATION, ETC.

BY C. N. BEMENT.

The cultivation of flowers affords the most innocent and refined pleasure. It is a gratification, a pleasure cheaply purchased, and within the reach of all—alike accessible to the rich and the poor. It enlivens the young mind, and invigorates the feeble frame. The moral lesson taught by flowers is worthy of attention. Their beauty ripens the taste and improves the heart. The love and cultivation of flowers is evidence of a refined mind, and affords food for reflection. "Consider the lilies of the fields, how they grow; they toil not, neither do they spin; yet I say unto you, Solomon in all his glory was not arrayed like one of these."

The great and increasing taste for the cultivation of flowers has induced us to devote a few pages to the subject, more particularly to the cultivation of our native wild flowers. The interest of many cultivators has been drawn away by foreign productions, while our natives, many of which are far superior in richness, have been left to bloom and fade in all their beauty, "unknown and unseen, to waste their fragrance on the desert air."

It is our present purpose to endeavor to awaken a greater zeal among cultivators and amateurs, for the growth of some of the brilliant plants which deck our fields and woods. Few persons seem to appreciate or even know to what perfection of culture many of our wild flowers may be brought in the hands of skilful gardeners.

Here we can not help remarking, that many flower-gardens are almost destitute of bloom during a great part of the season, which could be easily avoided, and a blaze of flowers kept up both in the garden and pleasure grounds from April to November, by introducing from our woods and fields the various beautiful ornaments with which nature has so profusely decorated them. Is it because they are indigenous that we should neglect them?

Floriculture and other branches of ornamental gardening have hitherto been less attended to in this country than those of a more useful kind—the rearing of fruits and culinary vegetables. A change, however, for the last few years has taken place of a more favorable character. The hand of nature has scattered the richest beauties of the flowery world around us in every direction, and there is nothing to prevent us from ornamenting our gardens and pleasure-grounds with native plants and flowers from every wood, from every field, and from every brook-side to which the eye can turn.

Among the great number of wild plants found in the vicinity of Albany, we have succeeded in cultivating some of the following named varieties:

Cardinal Flower—*Lobelia cardinalis.*—Among other plants remarkable for elegance is the Cardinal Flower, which in the last summer months may be found along our swampy grounds, near fresh water streams. From its great beauty and showy appearance it is a great favorite in Europe, and is generally cultivated in pots. It is a perennial plant, growing in a single stem from two to three feet high; leaves from three to five inches long and an inch or more in breadth, with a long tapering base. Flowers of a bright scarlet color, and very showy. Although it is wild, and is generally found in marshy or wet ground, and borders of rivulets, it grows readily when transplanted into a dry soil in a shady position. It is in flower from August to October. We have removed some of these plants to our garden in the month of April, and planted them in a moist, shady place, where they grew and flourished finely, producing abundance of splendid flowers the same season, and were much admired by all who saw them.

Small Fringed Gentian—*Gentiana detonsa.*—This species grows in various parts of the country. It is a wild flower of extreme beauty, and worthy of cultivation. It is found on lime-stone rocks, Goat Island, Niagara Falls, Irondequoit, and we have found it on the borders of the Norman's Kill, near Albany. It is supposed to be annual. Flowers yellow at the base, with a bright blue top beautifully fringed like the pink. It is a very pretty plant, and would show well in the garden.

Red Lily—*Lilium Philadelphicum.*—Of all the tribes of wild flowering plants, the Lily, in our estimation, stands preëminent. It is noticed in the sacred writings as of great brilliancy and beauty.

The Red Lily may be found in bushy places, on the borders of woods; we have found it growing in great abundance on the sandy plain between Albany and Schenectady. The stalk rises from 2 to 2½ feet high, supporting one solitary flower. It blooms in June and July. The color varies from

dark to light red, with a tinge of yellow. This is a highly ornamental plant, very little inferior, and not much unlike, the Tiger Flower, for which we have paid one dollar for each plant. It deserves a place in every garden. Number of flowers increases by cultivation.

Yellow Lily—*Lilium Canadensis.*—This is common in all parts of the country, and is found in moist meadows. Flowers in June and July. It grows from 2½ to 3 feet high, bearing from one to five or six nodding flowers spotted inside with dark purple. It is a bulbous-rooted plant, and we have transplanted them when in flower, with good success, in our garden, growing in full vigor, bearing from five to six beautiful flowers in each stalk.

Large Yellow Ladies' Slipper—*Cypripedium pubescens.*—This much-admired flower is found in moist, shady woods. There are three varieties of this species—some rather rare. "The root of this plant consists of numerous thick fibres. Flowering stem simple, and rising from one to two feet high. Flowers large and showy, solitary, sometimes with a large foliaceous bract at the base. Petals greenish, stained with purple, and from one and a half to two inches long. Upper sepal rather broadly lanceolate; the two lower ones commonly united nearly to the tip, but sometimes distinct. Petals lanceolate linear, undulate and twisted. Lip yellow, one to one and a half inches long, somewhat obovoid, much inflated."

Small Yellow Ladies' Slipper—*Cypripedium parviflora.*—This and the preceding are very nearly allied, and many of our botanists do not consider them distinct. In character it does not differ materially. "Flowers purplish-brown, mixed with green. Petals much narrower and rather larger, undulate and twisted, green-spotted, with purplish brown, or sometimes wholly purplish. Lip one to one and a half inches long, somewhat flattened above and below, the sides swelling out. Flowers in May and June." Rare; found in woods and swamps; sometimes on hillsides.

Purple Ladies' Slipper—*Cypripedium acaule.*—This plant is found in the vicinity of Albany, in woods, in both dry and moist situations; flowers in May. "Roots thick and fibrous. Leaves from three to six inches long, from one to one and a half inches wide, at first erect, but finally spreading. Stalk rises from eight to twelve inches high, flowers pendulous, with a shallow fissure or indentation in front, greenish mixed with purple."

This plant bears cultivation remarkably well, and improves by care and attention. We have had no difficulty in cultivating it, and consider ourselves well paid in its splendid show for all our trouble.

Purple Side-Saddle Flower—*Sarracenia purpurea.*—Whoever may have occasion to wander out among the numerous sphagnous swamps that diversify the sandy plains in the neighborhood of Albany, any time during the month of June, will not fail to have his attention directed to singularly beautiful clusters of reddish purple flowers, each one nodding on a solitary footstalk, that ascends from a whorl of far more singularly constituted leaves. This is the *Sarracenia purpurea.* It is exclusively an American genus, and is composed of six well-defined species, five being confined to the Southern States, while the present one appears to be equally disseminated from the shores of the Mexican Gulf, as far north as Hudson's Bay. "The flowers are large, and of a deep reddish purple color, with the petals greatly incurved, while the pale yellow stigma occupying the centre, expands in such a manner as effectually to conceal the more important organs of fructification from the sight. The leaves when mature are of a fine green color,

more or less stained with purple, and beautifully veined with a tint of a much deeper hue: they have the form and appearance of some antique Roman lamps: indeed, so striking is the resemblance, that had we been informed that this ancient people possessed any knowledge of this singular plant, we should have had little hesitation in assigning to it a suggestive original to their skilful artificers. The cavity, or reservoir, as it has not inaptly been termed, which occupies the centre of the leaf, is at all times partially filled with water, originating from rains and dews, into which numerous species of coleoptera and other insects are not unfrequently found, which have met their death in pursuit of a saccharine concretion, that copiously exudes from their internal surfaces. By this beautiful provision of nature, these plants are abundantly supplied with moisture when the excessive heats of summer prevail for any considerable time, and create unusual droughts; they are likewise thus furnished with the usual amount of animal food which they may necessarily require for their sustenance." The manner in which these insects are imprisoned, is thus described by Dr. McBride: "It may be sufficient here to remark, that the throat or orifice of those leaves is generally covered with a saccharine secretion or exudation. Immediately below the throat, for the space of nearly an inch, the surface is highly polished, while the lower part of the tube is covered with hairs all pointing downwards. When an insect, attracted in the first instance by the secretion of the plant, or perhaps even by the water, descends, as it easily can do, along the declining pubescence, it appears incapable of ascending by its feet alone, and can only escape by a flight so perpendicular as to surpass the power of most insects. Whenever they touch the bristly sides of the tube they are precipitated again to the bottom, and have to renew their efforts; and many insects even of a larger size perish in this arduous and hopeless struggle."

These plants are perfectly susceptible of cultivation; all that is required is, to remove with them a sufficient quantity of the decomposed vegetable matter and sphagnum in which they are found: place them in any partially water-tight vessel, and keep them saturated. These substances, when necessary, can easily be renewed.

Lupines—*Lupinus perennius*—an elegant and showy plant, a native of our dry hills, scattered all over certain parts of the country; well worth cultivation. Three or four sorts have been introduced from the north-west coast by Douglass. *L. polyphyllus.* The spike of elegant bluish purple flowers from two to three feet high, continues in bloom a month; common on our dry sandy lands; would make a fine show in a cluster or bed. There is another kind—*bicolor*—flowers white and yellow, and very sweet-scented; can be grown from the seed.

There are a great number of other beautiful native plants that are worthy of cultivation, which we may notice at some other time. We hope to succeed in introducing to the notice of our young readers a taste for the cultivation and study of the beautiful productions of our country. Three-fourths of the beautiful flowers, so highly prized in European gardens, are actually natives of America.

[We should really be glad to see some of our native flowers more commonly introduced into the garden, and improved; and while we think Mr. B.'s list a good one as far as it goes, we should hesitate about most of the Starworts, because of their intrinsic deficiencies. We have a long list of others much richer in all the elements of real beauty.—Ed.]

EDITORS TABLE.

To Contributors and others.

Communications, Letters, Catalogues, Periodicals, &c., intended for the perusal of the Editor, and packages by Express, should be directed to the care of C. M. Saxton, 25 Park Row, New York. Exchanges should be addressed to "THE HORTICULTURIST."

RED SCUPPERNONG WINE.—We are indebted to Dr. Wylie, of Chester Court-House, S. C., for a bottle of very delicate Scuppernong Wine—no, we forget; it was not the Doctor, it was "Annie," who sent it, and she, and not the Doctor, (we are very particular about this,) will please accept our best thanks. At first we thought it was just a little too sweet, but when we remembered who sent it, we didn't think so at all; on the contrary, we thought it was just right. We did not see Annie, for she had left for Saratoga before we called; but we know she must be both beautiful and good to send us such nice wine. It made our sanctum really cheerful for a time.

AMERICAN POMOLOGICAL SOCIETY.—We would again call attention to the meeting of this Society, to be held in Philadelphia on the 11th of September. The meeting will be held in the large Assembly Building, at the corner of Tenth and Chestnut streets. The large hall, 135 by 30 feet, will be devoted to the exhibition of fruit, and the smaller hall will be reserved for the business meetings and discussions of the Society. Every member and delegate should bring samples of fruit, and those who can not come should send by express. The accommodations will be ample.

VISITS.—We recently made a brief visit up the Hudson, stopping at Dr. Grant's, Mr. Downing's, Mr. Sargent's, and other places. We made short notes by the way, but returned too late to write them out for the present number. They will appear in our next.

CHERRIES.—Dr. Grant, Mr. Prince, and others, will accept our thanks for fine collections of cherries, embracing several new kinds. Drawings of some of the latter, we shall give hereafter, with notes of comparison.

THE SEVENTEEN YEAR LOCUSTS.—Much has been said about the harmlessness of these Locusts, which we were disposed to put faith in. Their history, undoubtedly, is a wonder; one of the most striking, indeed, in the whole range of insect life; but recent observation has compelled us to put them in the same category with the curculio, the wheat fly, the cut worm, and other destructive pests, to be destroyed without mercy. The woods in some portions of New Jersey look as if a fire had passed over them. The *ovipositing* of the Locust is not confined to the young wood of the present year, as is generally thought; we have seen innumerable instances of it in wood two, three, and four years old; we have also seen hundreds of young

pears, apples, ornamental trees, shrubs, &c., completely cut up by them, the incisions, in many of the young trees, being carried down the *body* of the tree to within a foot of the ground. Many of the limbs were dead, others were dying, and the probability is that many young trees will be entirely destroyed. It is too soon yet to speak confidently of the extent of the injury sustained, but it will no doubt be considerable. We hope that the trees, &c., in the breadth of country occupied by the Locust, will be carefully examined and the amount of injury noted, and that all the facts will be carefully put on record, so that the history of the insect may be more precisely known, and the necessary measures of protection taken when it makes its appearance again seventeen years hence.

PANSY SEED.—We are indebted to Mr. Dreer, of Philadelphia, for seeds saved from his prize flowers, of which we shall try to give a good account hereafter. Our readers will remember to sow their Pansy seed during August, September, and October. We shall have another good article on this subject next month.

FRUIT.—We are indebted to Mr. Chisholm for a fine collection of Pears. As there are more to come, (our mouth still waters,) we will speak of all together. Of two of them we shall give outlines.—To Mr. P. J. Berckmans we are indebted for Delaware Grapes and a fine bunch of the Brincklé. We have a drawing of the Brincklé in preparation, and will give it with our description.—From Mr. T. W. Field, good specimens of Doyenné d' Eté.—From Mr. C. A. Alvord, large and handsome Peach Apricots.

THE HAND BOOK.—This is an annual record of Agricultural and Horticultural statistics, &c., compiled from various sources by Wm. P. Shephard, proprietor of the Horticultural Agency, 198½ Water street, New York. It contains a large amount of useful information pertaining to plants, horticultural and agricultural publications, nurseries, &c., and will be valuable as a work of reference. The price is $1 00.

A PIANO FOR THE COTTAGE.—Why not? Where is music more musical than in a rural cottage? Messrs. Marshall, James, and Frazer have been making a small, cheap, neat, well-finished instrument, which they call the "Parlor Gem." It is a full-toned instrument, with a key-board of large compass, and might well have been named the "Cottage Gem." We should like to see just such an instrument in every "cot" in the land.

THE FARMER AND GARDENER.—This monthly comes to us for July changed to an octavo, certainly a better form than its old one. A. M. Spangler continues as Agricultural Editor, and William Saunders assumes the Horticultural chair; both are capable and experienced men. In its new dress and improved form, we hope it may meet with increased success.

A STRANGE COINCIDENCE.—Under this heading, a writer in the New York *Evening Post* states, that "several years ago Dr. Siebold introduced into Europe (from Japan) a flowery tree called *Pawlonia imperialis;*" and the "strange coincidence" is, as he states it, that this year, during the visit of the Japanese, "it blooms for the first time." The strangest coincidence is, that this article should have been copied, without comment, by a number of our horticultural and agricultural periodicals. The simple fact is, that the Pawlonia was introduced into Europe some twenty years ago, and soon after into this country. We think we saw it in bloom at the nursery of the Messrs. Parsons nearly fifteen years ago, and it is now a common shade tree all over the United States. Instead of the few trees "in several of the Fifth Avenue gardens," there were thousands in bloom at that time in the public streets and parks of New York, and all over the country, and they have bloomed for years past. We are confident that the article in the *Post* could not have been seen by Mr. Bryant, for we know him to be an intelligent horticulturist as well as a great poet.

HOLLYHOCKS.—We dropped in a few days since to see our friend, Andrew Richardson, Esq., and examine his double Hollyhocks, and were greatly delighted with what we saw; in fact, our companion, Mr. Miller, got a little ecstatic. Mr. R. has undoubtedly much the finest collection we ever saw, composed partly of importations and partly of seedlings. The following are some of the finest: Mrs. Blackwood, white; Wm. Hume, bright, glowing pink, the most splendid Hollyhock we ever saw; Tricolor, white, with crimson and purple stripe, and green edge; Shrubland Gem, yellow; Pourpre de Tyre, purple; Mrs. Ochre, yellow, with crimson center; Sir David Baird, purple; Captain Thompson, crimson and purple; Hon. Mrs. Ashley, pale pink; Beauty of Cheshunt, fine pink; Duchess of Sutherland, light pink; Beauty of Minden, splendid white; Cyrus, brilliant pink, and many others nearly as good. Among the seedlings the following are very fine, and, with two exceptions, equal to any of the above: Mrs. Richardson, bright pink; Carrie Saxton, dark purple; Debbie de Gray, bright pink; Lizzie, dark pink; Kate, bright rose; Minnie Miller, bright yellow: Peter B. Mead, beautiful claret. All these are full and of beautiful form, and abundant bloomers. They were grown in a large bed, and the effect was grand. We could hardly help wishing that Mr. Richardson was a florist instead of an amateur, so that these splendid flowers might be widely distributed. Mr. R. has a great many other choice things, such as very fine Sweet Williams, Phloxes, Chrysanthemums, &c., many of them imported last spring. The Phloxes were small, and only just coming into flower. Of older plants in bloom, the best were Mademoiselle C. Fontaine, satin white with a clear pink eye, very beautiful; Purpurea superba, a very fine dark purple; Mademoiselle Albertini, white, with pink eye; Madame Fontaine, fine light purple; Mrs. Gillon, white, with pink eye. Mr. R. has also a very large and choice collection of Dahlias, as he should have, as he is esteemed here unapproachable as a Dahlia grower. He has also a large number of seedlings. He has a penchant for bedding, and plants Zinnias, Lupins, &c., in masses very effectively. We noticed some beautiful specimens of the Clematis, and measured flowers of the C. lanuginosa pallida eight and three-quarter inches in diameter. We might fill a page with descriptions of other choice things, but our principal object was the Hollyhocks, and these we shall not soon forget. In the midst of so much that is enjoyable, our artist friend must pass life pleasantly.

TO NURSERYMEN.—We are requested to say by Messrs. Saxton, Barker, & Co., that they will receive at their store for distribution the Catalogues, &c., of the various Nurserymen, Seed-sellers, &c., the expenses, of course, to be paid on all such parcels sent to them. This is a liberal offer. The store of these gentlemen constitutes the great head-quarters of the Agricultural and Horticultural world, and is therefore the best point from which to make such a distribution.

THE YOUNG FARMER'S MANUAL.—This work, announced a short time since, has just been published in good style by Saxton, Barker, & Co. It is devoted chiefly to the mechanical part of farming, such as fencing, building, plowing, selecting and using tools, draining, &c., and will be followed by another mainly devoted to the culture of crops, &c. It is a work of great value to the farmer, by an earnest, intelligent, and practical man. The illustrations are numerous, and form an important feature of the work. The author, S. Edwards Todd, is well known as one of our most successful agriculturists. The price of the work is $1 25.

CARRINGTON'S COMMISSIONAIRE.—The object of this journal, it is stated, is to "make known an agency through which non-residents can send to New York, and purchase any article wanted for individual use, or for dealears' supplies, either singly or by the quantity, from a shawl to a steam engine—a penknife to a piano." It is consequently a capital advertising medium. The reading matter is witty and racy to a degree. It is published at 98 Broadway.

FRUIT-GROWER'S SOCIETY OF PENNSYLVANIA.—We are indebted to the Secretary for the first annual Report of the proceedings of this Society. It is made up of reports of committees,

discussions, &c., divested of all superfluities, and is a record of much interest. We are glad to see it put in a permanent form.

PROF. HOPKINS' SCHOOL.—It will be seen by our advertising columns that Prof. Hopkins will open a boarding-school for boys in September at Metuchin. N. J. The object of the Professor is not only to give instruction in the usual scholastic course, but also to impart a sound knowledge of the theory and practice of Horticulture. This is a most worthy and commendable project, and presents peculiar advantages to farmers' sons who are seeking to be educated in the duties of life. The Professor is well qualified for the task, being a ripe scholar and an experienced horticulturist, and we heartily recommend his school to the notice of all interested.

FARMER'S CLUB.—The Farmer's Club of the American Institute holds weekly meetings for discussion; and though occasionally the time is too much taken up with outside matters, it very often happens that useful information is elicited and good things are seen. At a recent meeting a committee reported the following as the five most profitable strawberries for general cultivation: Hooker, Hovey, Longworth, Wilson, Jenny Lind. Mr. Prince had a case of his seedlings, which were also noticed, as well as a large number from Mr. Fuller. Mr. Prince had on the table a very fine lot of Pæonies, and Mr. Hite made a very fine show of the Wilson. The Austin was also on exhibition, our opinion of which will be found elsewhere.

AMERICAN GLIMPSES.—Under the title of "American Glimpses of Agriculture in Great Britain," Mr. Tucker, of the *Country Gentleman*, has given us a brief record of his recent tour in Great Britain. Mr. Tucker is a close and discriminating observer, and has given his readers a better and more comprehensive idea of the present condition of Agriculture and of agricultural life in Great Britain, than can be gleaned from a score of ordinary books of travel. However much our own practice may, and must in some respects, differ from that of Great Britain, no intelligent farmer can read this little work without adding something to his store of knowledge.

FRUIT-GROWERS' ASSOCIATION OF WISCONSIN.—We are indebted to Secretary Willey for the Report of this Association for the year 1859. It is a carefully prepared document, containing a large amount of useful information by experienced Horticulturists, well worthy of preservation in a permanent form. Such reports constitute an important part of the history of the times.

CATALOGUES AND BOOKS RECEIVED.

Descriptive Catalogue of Carnation Pinks, grown and for sale by Andrew S. Fuller, Yates Avenue, near Myrtle, Brooklyn, L. I.—We recently saw this collection, and found it exceedingly choice. Some twenty-five are monthly. At $10 a hundred nobody need be without a bed of choice Carnations.

Fourth National Exhibition of Horses, at Springfield, Mass., Sept. 4, 5, 6, and 7, 1860.—A very liberal prize list, but why not a substantial token for the fastest *walking* draft horse?

Descriptive Catalogue of Fruit and Ornamental Trees, Shrubs, Seedlings, Grape-Vines, Roses, etc., cultivated at Mark D. Willson's Nursery, West Bloomfield, Ontario Co., N. Y. N. R. Willson, Mark D. Willson, proprietors.

Old Colony Nurseries, Plymouth, Mass. B. M. Watson's new abridged wholesale Trade Catalogue for 1860, of select Trees and Plants for Suburban Residences, containing all the really valuable new Fruits and Flowers of recent introduction, at reduced prices, without further discount.

Descriptive Catalogue of Trees and Plants grown at the Walworth Nurseries. T. G. Yeomans, Proprietor, Walworth, Wayne Co., N. Y.

The Life of Jacob Gruber. By W. P. Strickland. New York, Carlton and Porter, 200 Mulberry St.

List of Premiums and Rules and Regulations for the Ninth Annual Fair of the Indiana State Board of Agriculture, to be held on the new grounds, near the city of Indianapolis, commencing on Monday, October 15, and continuing during the week. Open to the world.—A very liberal and well-prepared list, the prizes amounting to the handsome sum of $12,000. This ought to secure a good exhibition.

Premiums and Regulations for the Eleventh Annual Fair of the Ohio State Board of Agriculture, to be held in the city of Dayton, on Tuesday, Wednesday, Thursday, and Friday, the 25th, 26th, 27th, and 28th days of September, 1860. Competition open to other States.—Another liberal and well-digested prize list.

Catalogue of the Officers and Students of the Farmer's High-School of Pennsylvania.—The object of this institution is to combine study and labor, and fit young men for some useful purpose in life, but chiefly to make them intelligent and thorough farmers. The object is a very commendable one; such institutions are not half as common as they should be.

The Journal of Rational Medicine. Edited by C. H. Cleaveland, M.D. July, 1860. P. C. Browne, Cincinnati.

Correspondence.

PETER B. MEAD, ESQ., DEAR SIR:—I wish to say something in regard to the Newtown Pippin apple, because some people are forever crying that this and that variety of fruit is "run out."

Each class of fruit requires an appropriate soil, comprising therein the constituents naturally adapted to its developemnt; and there are even varieties of the same species of fruit which require a variation in soil.

The Newtown Pippin delights in high culture with manure and lime, and it is the neglect in culture or the lack of the ingredients that renders the tree deficient in vigor and unproductive. I am well satisfied that this variety can be cultivated with as much success and that it will grow with as much vigor, as it ever did, provided it receives the proper attention.

It is, however, the natural character of both the varieties to grow slower than many other kinds, and consequently to attain to less size in an orchard than most others of the same age. The roughness of the bark of the green variety, which is the kind mostly cultivated, gives to the trees an unthrifty appearance, when, in point of fact, this is but a natural characteristic.

I have felt impelled to make these remarks, after inspecting an orchard planted in 1846–47. This apple has some peculiarities which I have not seen noticed. One is that the seeds do not come from the core *clean*, but have more or less particles of the core adhering to them. The quality of the fruit varies very materially according to the soil, climate, and treatment. When in its highest state, it has a thin, *smooth*, and polished skin, with tender flesh; others grown under less favorable circumstances, have a rough skin, the texture of the flesh more tough and breaking.

Yours very respectfully,

Flushing, July 13th, 1860. W. R. PRINCE.

[We are not among those who believe that fruits "run out," in the common acceptation of that term. We simply state our opinion, without attempting a discussion. We are not so decided, however, in our belief in the two varieties of the Newtown Pippin called Green and Yel-

low. We have seen changes in the same orchard which have staggered our belief on this point How far variations in soil, locality, age, &c., are concerned in such changes, may form an interesting topic for future discussion.—ED.]

EDITOR OF THE HORTICULTURIST:—The weather is very warm and trees of every class growing very fast; just rain enough and none to spare. Three pounds of Norway Spruce in seed, but all up very fine: think every seed grew; have thus far shaded with cut straw. Will the mulch and the cloth be sufficient protection for the young plants during the entire summer? or must we put thicker shade over them?

On page 251 current volume you say, "Pears, Plums, Nectarines, &c., can be grown in pots by anybody who has a greenhouse or grapery and a good cellar, or even the *latter alone*." Can peaches be raised in this way by wintering them in the cellar and keeping them there as long as possible without starting, then sinking the pots in the soil or borders as you describe? Peaches are "no go" with us here, unless they can be made "movable beings." The fruit crop of the State promises well. Apples and Pears, especially the latter, exceed anything I have seen in the State before. And if nothing new comes up, Wisconsin may want a "niche" in some by-place of the American Pomological Society held in Sept. next. Accompanying this I send you a copy of the Wis. Fruit-Grower's discussion held in Whitewater, Jan. last.

Yours truly,

"76" *Nursery, Madison, Wis., June* 21, 1860. O. S. WILLEY.

[Yes, your shade will be enough, and more than enough by and by. Remove it by degrees as the weather grows cool in the fall to harden the plants. Let the mulch remain. Peaches can be raised in the way described, and in great perfection. You will be greatly delighted with the result. Be sure to begin with "maiden" trees. We shall look for Wisconsin in Philadelphia in September. Do your best.—ED.]

CORRECTION.—ED. HORT.: Last autumn I wrote an article for your Journal giving authority for believing that the Isabella grape is not a native of the United States, but of Europe or the West Indies. Since then, on further evidence, I am disposed to think it is a form of our native Vitis labrusca, the parent of the Catawba and some other cultivated varieties. Those who have grown both the Isabella and Catawba, know that these grapes have so great a family resemblance as not to be specifically distinct in botanical language. They are both undoubtedly of the same parentage, and like other American grapes, are diœcious-polygamous; differing in that respect from many European species.

I would by no means question the veracity of Dr. McRee, Judge Ruffin, Lespeyre, and other citizens of North Carolina. The explanation is this: Lespeyre is the first known cultivator of the Isabella. On returning from Europe via the West Indies, he brought a box of grape roots, some of which he probably obtained in the West Indies, and the Isabella may have been derived from that region; as the Vitis labrusca grows South, extending into Texas. It may also be a native of the West Indies. If not, the Isabella may have been taken there for cultivation and reconveyed by Lespeyre to the United States.

July 1, 1860. S. B. BUCKLEY.

[Having fallen into an error, there is but one manly course left, and that is to acknowledge it. This Mr. Buckley has done, and we like him the better for it. Nothing can be more certain than that the Isabella is a native grape; the evidence is too plain to be doubted.—ED.]

HORTICULTURAL SOCIETIES, ETC.

HORTICULTURAL CLUB OF POUGHKEEPSIE.—There is a Club at Poughkeepsie by this name, who hold frequent conversational meetings, and an occasional exhibition. They seem to be doing a good work, and we hope they will continue in it. In June they held their first public

exhibition, and it seems to have been successful and satisfactory. Edwin Marshall exhibited 48 varieties of strawberries; S. M. Buckingham, 7; I. H. Cogswell, 10; Stephen Uhl, 4; H. D. Myers, 5; H. & J. Carpenter, 4; H. L. Young, 2; T. Gregory, 5; G. C. Burnap, 4; H. J. Jewet, 1; A. Wilcox, 1; W. Creighton, 2; D. Fonterey, 2; N. C. Trowbridge, 1; E. K. Jones, 1; composing a very fine display. Hothouse Grapes were exhibited by T. L. Davis, E. Marshall, and Haggerty & Kettell. Cherry Currants were exhibited by E. Marshall, who also had 17 varieties of Gooseberries. S. M. Buckingham exhibited 5 varieties of Cherries, and Isaac Tice one. The Ladies were also on hand with Bouquets and Cut Flowers, the contributors being, Mrs. N. C. Trowbridge, Mrs. G. C. Burnap, Mrs. A. L. Pease, Mrs. Rosenkrans, Mrs. A. Wilcox, Mrs. T. L. Jarvis, and Mrs. A. Vankleeck, but not a "single" Miss, unless it be Carrie Sherman, which does not appear. Perhaps they have no girls at Poughkeepsie. What a place it must be! No girls!

We understand that no prizes were awarded, and that the use of the Hall was offered gratuitously by Mr. Myers.

YONKERS HORTICULTURAL SOCIETY.—This young and enterprising Society held its first exhibition at Farrington's Hall on the 14th and 15th of June. The exhibition proved an auspicious beginning, and was a source of great satisfaction to the members and the public. We append a list of the prizes awarded:

FIRST CLASS.—*Greenhouse Plants and Flowers.*—The Committee awarded for the best general collection, a silver goblet to C. H. Lilienthal, Esq. Gardener, Timothy Ryan.

For the second best do., to Messrs. Strange. Gardener, A. Campbell.

For Choice Collections.—To William A. Hall, Esq., a Special Diploma. Gardener, John Lee.

To J. B. Colgate, Esq., a Special Diploma. Gardener, Patrick Ryan.

To Wm. T. Coleman, Esq., a Special Diploma. Gardener, Thomas Ryan.

To Henri Bussard, Florist, a Special Diploma, for specimen of Victoria regia.

To Nicholas Longwood, Esq., a Special Diploma.

The Committee deem worthy of particular notice in this department, the contributions from Robert P. Getty, Esq., Gardener, John Downing; Anson Baldwin, Esq., Gardener, William Tracy; and Thomas W. Ludlow, Esq., Gardener, Michael Prendergast.

SECOND CLASS.—*Plants and Flowers cultivated in the open air.*—For the best collection of cut flowers, a silver goblet to Henri Bussard, florist.

For the second best do., a silver goblet to Henry A. Swan, Esq. Gardener, James Slade.

For handsome collections.—To William A. Hall, a Special Diploma. Gardener, John Lee.

To Wm. T. Coleman, Esq., a Special Diploma. Gardener, Thomas Ryan.

To Robert P. Getty, Esq., a Special Diploma. Gardener, John Downing.

They also deem worthy of particular notice a beautifully arranged basket of flowers from Mrs. Charles M. Connolly.

Blossoms of Magnolia grandiflora from Mrs. John K. Myers.

A basket of flowers from Miss Kate Woodworth, and a vase of flowers with an ingeniously arranged jet of water springing up from its centre, from Mrs. Joseph Agate; also a box tree 160 years old, from the garden of Judge Woodworth, Manor Hall.

THIRD CLASS.—*Greenhouse Fruits.*—The Committee award for the best collection, a silver goblet to C. H. Lilienthal, Esq. Gardener, Timothy Ryan.

For the second best do., a silver goblet to James McBride, Esq.

FOURTH CLASS.—*Fruit cultivated in open ground.*—For the best collection, a silver goblet to Fred. S. Cozzens, Esq. Gardener, Andrew Noonan.

For the Second best do., a silver goblet to James B. Colgate, Esq. Gardener, Partick Ryan.

For the finest basket of Strawberries, a Special Diploma, to Jona. Odell, Esq.

For the finest gooseberries, a Special Diploma to C. H. Lilienthal, Esq.

For the finest currants, a Special Diploma to C. Cleveland, Esq.

They also deem worthy of notice the samples of wines from grapes grown in our own township, by Mrs. Archibald Baxter, and two fine specimens of cherries, which came in too late for competition, exhibited by Jacob Read, Esq., and Mrs. Dorley.

FIFTH CLASS.—*Vegetables.*—For the best collection, a silver goblet to William A. Hall, Esq. Gardener, John Lee.

The Committee do not award any second premium in this class, as, on account of the early season, the few collections exhibited are of about equal merit.

The following contributions are deemed worthy of special notice.

John T. Warring, Esq., specimens of pie plant; James B. Colgate, Esq., cucumbers; Robert P. Getty, Esq., spinach and peas; John Davidson, Esq., turnips, onions, and radishes; the Misses Bell, cabbage and lettuce; James C. Bell, Esq., beets, best exhibited; Dr. Habell, asparagus, do.; C. Cleveland, Esq., beets and spinach; William T. Coleman, cauliflower and peas.

SIXTH CLASS.—*Articles of Domestic manufacture.*—The Committee not deeming any collection in this class sufficiently large to be entitled to a first class premium, award as follows:

A Special Diploma to Miss Adela Baylis, for two vases of wax flowers.

A Special Diploma to the Misses Bell, for a beautiful chair in worsted work.

A Special Diploma to Mrs. Brett, for choice specimens of worsted.

A Special Diploma to Mrs. John D. Stelwagon, for three pieces of exquisite worsted work.

A Special Diploma to Miss Anna Thurber, for a set of embroidery. Collar and sleeves very fine.

A Special Diploma to Mrs. William Bell, for three pieces of needle-work in worsted, very fine.

They desire to call particular attention to the three pieces of knitted work by Mrs. G. H. Bartholomew. A Bernouise and Tidy in crotchet worsted by Mrs. William Bell. Worsted work in frame by Miss Pollock. Knitted Sack and Tidy by Miss C. A. Baldwin. Piece of worsted work by Miss Lydia Flagg. Sofa Pillow in raised flowers by Miss W. W. Woodworth. Two crotchet Tidies in cotton by Miss Maria T. Cleveland. Three pieces worsted work by Miss Mary T. Bell. Afghan by Mrs. Thomas W. Ludlow. Embroidered Handkerchief by Miss Ida Cleveland. Muslin Quilt by Mrs. Betts. Worsted Embroidering in frame by Mrs. F. V. Hamlin.

There being no Committee on the fine arts to award premiums, the Board of Management have decided to award to A. Ceileur, Esq., a Special Diploma for a superb Photograph exhibited.

Also, a Special Diploma to William D. Carpenter, Esq., for a fine portrait of Gov. Chase.

They deem worthy of particular notice a beautiful landscape by Mrs. William F. Groshon. A fine Crayon head by Miss Rebecca Copcutt. A painting and Crayon head by Mrs. L. Cobb. Articles of Sculpture in marble by Master J. W. Cable.

FRUIT-GROWERS' SOCIETY OF WESTERN NEW YORK.—The June session of this Society was held at Buffalo on the 27th and 28th. The President, Col. Hodge, being absent on account of illness, S. H. Ainsworth, Esq., took the chair. After the usual preliminary business, the following discussions took place, which we condense from the *Country Gentleman* and *Rural New Yorker*, but mainly from the former. The discussion on Grapes, however, was furnished us by a friend who was present, and who will please accept our thanks:

1. *Strawberries.*—What are the six best varieties of strawberry for family use, and the best six for market? and which is the best method of cultivation in each case?

Mr. Herendeen, of Wayne county, remarked that there was only one sort that he could really recommend, and that sort was "Wilson's Albany"—it would bear twice as much as any other sort, and four times as much as any common variety—can have them for eating in the family for two weeks, and it is a berry that wears well. It is acid, to be sure, but good, and the vine is

perfectly hardy; while the last berries of the season are as large as the first. Does not produce small berries if well cultivated.

For market cultivation, plant in rows four feet apart; cultivate between the rows till within two weeks of ripening, and then mulch with cut grass. In this way they will endure several years. Has crops of which this year is the fourth year, and they are full crops. The market men here in Buffalo were this morning selling Wilson's at three cents per quart higher than any other sort.

Mr. Coppock, of Erie Co., differed decidedly from friend Herendeen as to this sort. All strawberries have locations, and they change flavor, &c., when grown in various places. Here in Buffalo it does not keep up its full size, and the popular opinion is that it is not fit to eat. Wilson's Albany has a peculiar acid, and leaves a singular flavor on the palate after eating. Won't eat it at all. Likes Scott's Seedling and Genesee very much, but the climax is Burr's New Pine. With this there is no fault to be found. Longworth's Prolific is a capital berry, and Prince's Eclipse is earlier than Jenny Lind; but a seedling called "Coppock's No. 1" is the only sort I now cultivate in any quantity, and of that have fully five acres in bearing.

Mr. Moody, of Niagara Co., has planted upon a soil called a chestnut loam—cultivates some fifty sorts, and Jenny Lind is a week earlier than Wilson's Albany. Next is Peabody's Seedling. Triomphe de Gand is a fair bearer, but must be kept in hills. Hooker is very superior for flavor, and is a fair bearer. Trollope's Victoria does very well, and well cultivated is fine. Monroe Scarlet is the sixth.

Mr. Vick, of Monroe Co., spoke of the adaptation of the different varieties to different soils and climates; but so far as productiveness was concerned, Wilson's Albany must be universally conceded to have taken the lead. Scott's Seedling, Monroe Scarlet, Triomphe de Gand, Crimson Cone, which two years ago in the city of New York was cheaper than any other variety, but market gardeners' for New York are getting now into Wilson's Albany. For a private garden, would cultivate in hills a foot apart, and hoe up each plant separately. Renew the hills once in three years.

Mr. Hoag, of Niagara county, cultivates upon a sandy loam with no manure. Plants in rows three and one-half feet apart, but does not like the single hill system. Wilson's Albany most productive, and after the Hooker and Chilian. Chilian has been with him more hardy than Wilson's Albany. Spring is a better time than fall to set out plants.

Mr. Glen, of Monroe county, planted Crimson Cone upon a space of sixteen square rods, (one tenth of an acre,) and the second year picked eleven hundred quarts of berries. They had continued bearing well, and now this fifth year, had already yielded over one thousand quarts. Wilson's Albany is an enormous bearer the first year, but afterwards diminishes very much in productiveness. The Large Early Scarlet will bear as many quarts as Wilson's Albany, and comes first into market, when the price is high, the demand great, and the sales easy, while Wilson's ripens mainly in the glut of the market. Triomphe de Gand is very pruductive and very fine. Hooker is perhaps somewhat tender in open winters or exposed situations, but it is of unsurpassed high flavor. Scott's Seedling is very productive, but of insipid flavor. Crimson Cone is very fine and good for preserving. When planted in hills mulching is necessary.

Mr. Chas. Downing remarked that Wilson's Albany was the most productive plant he ever saw, but the fruit was too sour by far. Jenny Lind is a fine early sort. Triomphe de Gand was his favorite. Scott's Seedling was very handsome, but possessed no flavor. Of all crops, perhaps the strawberry was the most variable known, some sorts being admirably adapted to some localities and some to others. Trollope's Victoria was of fine flavor, but not very productive. Monroe Scarlet was not as good on the banks of the Hudson as farther west, while Hooker was a berry of superior flavor, but not productive enough to satisfy the demands of many.

Mr. Beadle, of St. Catherine's, remarked that in Canada, upon a soil decidedly sandy, there

was no variety for table use which was as early, of as good size and fine flavor as the Large Early Scarlet. Hovey's Seedling did well, having a few large berries on each truss, and ripening as it did next to the Early Scarlet, and being of a good flavor, formed a capital succession crop. Burr's New Pine is, however, the best strawberry we have ever seen in all its qualities, in productiveness and in flavor. In size we have only one rival for it, and that is Triomphe de Gand; we think a good deal of that, so far. Hooker bears large berries and a good crop of the finest flavor, with a few small berries on the truss. In Canada we are obliged to protect *all* our strawberries in the winter. We plant in the spring, rows 2½ feet apart, and plants 1½ feet apart in the rows; let the runners fill in the spaces during the first summer, and then stop runners—we mulch with grass, have two seasons of fruit, and then dig up.

2. *Cherries.*—What are the best six varieties of Cherry for family use, and also for market purposes? and the best method of cultivation?

Mr. Downing was called upon for his opinion, when he remarked that Coe's Transparent was an excellent Cherry for family use. Belle de Choisy was better, but a poor bearer. May Duke was one of the best for market. He would also recommend Great Bigarreau and Kirtland's Mary, and would speak well of Gov. Wood, but it is so liable to rot. Early Richmond is a very useful cherry. Early Prolific is a good early cherry, and a great bearer. Ripens with Belle d'Orleans.

Mr. Coppock of Erie Co.: Coe's Transparent for market are the most profitable; very good indeed. Black Tartarian, Yellow Spanish, Elton, Black Eagle, and May Duke.

Mr. Bissell, of Monroe Co., for earliest, wished Early Purple Guigne, and afterward Elton, Rockport Bigarreau, Coe's Transparent, Belle de Choisy, May Duke.

Mr. Hoag, of Niagara Co., named the old American Black Heart, which this year had borne ten bushels of fruit, selling readily at $3 per bushel; tree is always productive; fruit perfect, never wormy, jet black in color, and in texture soft and melting. Belle Magnifique is a fine late cherry for bottling—retains its shape and flavor admirably.

Mr. Jos. Frost, of Monroe Co., remarked that Coe's Transparent, at the Genesee Valley Horticultural Society, took the first premium for the best quart. Mr. F. thought that Belle de Choisy was one of our best desert cherries, and when the tree obtains age it bears well; but as for cultivation, Mr. Frost spoke very strongly in favor of trees on the Mahaleb stock. Dwarfed in this way they are far hardier than as standards, and are particularly desirable in the vicissitudes of our climate at the West. The tree is more bushy, and in form much preferable, while the fruit can be much easier gathered, and is actually much larger and finer than on standards. Besides this, the trees bear fruit earlier, and for small gardens the Duke and Morello varieties are particularly desirable on Mahaleb stock.

Mr. Downing spoke of Vail's August Duke as a variety highly thought of for a late sort, ripening about the last of July, and also said that on Mahaleb stock, cherries were better than as standards.

Mr. Townsend, of Niagara Co., would add that a soil of moderate fertility should in all cases be chosen to plant cherry-trees upon, and although the ground should be cultivated well, and all weeds kept away, it should not be too much stimulated by manures. On the Mahaleb stock the cherry-trees are not subject to so many vicissitudes as on standards. The wood is more dense and less subject to winter injuries, while the trees begin to bear at three years of age, and the size and quality of the fruit are very much improved.

3. *The Raspberry.*—"What are the best varieties of Raspberry for market, and which the best for family use, hardiness and productiveness considered?"

Mr. Downing preferred Brinckle's Orange for family use—is as hardy as any raspberry; Hudson River Red Antwerp for market—berry solid and carries well to market. All raspberry plants need to have the cane bent down and a little earth thrown on. Red Prolific is a red berry resembling the Black Cap in many respects, and far better in flavor. The Allen Raspberry has so many suckers that it is a real nuisance in a garden.

Mr. Joseph Frost concurred in what Mr. Downing had said about Brincklé's Orange, and in all his experience had found none so great a favorite.

Mr. Jas. Vick remarked, that letters from the West said that they considered Brincklé's Orange their only good bearer.

Mr. Fish repeated that unless Brincklé's Orange and Hudson River Antwerp are regularly protected in winter, they will die back; but for market the only good sort is the improved American Black Cap, commonly called the Doolittle Raspberry. This sort bears carrying better than any other variety known.

Mr. Hoag stated that five years ago he planted out a large assortment of varieties, but after cultivating them all with care and attention for three years, he removed all of them except Brincklé's Orange for family use. All of the sorts do, however, require some degree of protection. The American Yellow Cap has the same qualities as the Black Cap, and is improved very much in size and quality by cultivation.

Mr. Herendeen stated that his partner, J. J. Thomas, had tried the Allen faithfully, but does not like it.

Mr. Glen had tested the Allen Raspberry and exterminated it—had between two and three acres of Doolittle Raspberry—planted four feet by six, and they yielded more quarts of fruit to the acre than any strawberry—would bear shipping to any distance, and were very nice indeed—were larger and finer, and not so seedy as the common American Black Cap.

Mr. Moody liked them very much for market and for putting up in cans. Cultivated four canes to the hill, and trained the tall canes to posts and wires. New plants can be produced very freely by bending over the tips of yearling plants.

Mr. Downing called attention to Vice-President French—a week later than most of the Raspberries. A fine large berry; plant vigorous and productive.

4. *The Currant.*—Which is the best variety of currant, both for market and family use?

Mr. Moody thought most of the White Grape currant. It is much larger than any other sort except the Cherry currant, while it is not so acid as that sort is. The bush is very productive and vigorous in its growth, while the fruit hangs long on the bunches. Had eaten it fresh and in good flavor on the first of October. The fruit is twice the size of the White Dutch, and the bush will bear twice the quantity. There is a very marked difference between the foliage of the sorts; and then, again, the White Dutch fruit will all fall off when ripened, while the White Grape are all sound, the bunches of fruit compact and all doing well. This variety I put No. 1.

No. 2 is the Cherry, which is an enormous bearer and large, although quite acid, and needing considerable sugar to make it agreeable.

A cool soil is the best for currants, not wet, but moist. It should be well cultivated and in order, to keep the plant most free from weeds and grass. I think best of the tree shape. Trim out the lower branches and leave a bushy head. Plant the rows 4½ feet apart, and plants 2½ feet apart for fruiting, and manure highly.

Mr. Downing had seen bushes named White Grape and White Dutch, between which there was very little difference in color, or habit of growth, or size of fruit.

Mr. Sharpe, of Niagara county, had had an experience like that of Mr. Downing, and was perfectly surprised upon seeing the difference between the genuine White Grape and the White Dutch, as they stood side by side. The White Grape were double the size, and there was a very large difference in the quality of the fruit, while the habit of growth was distinct.

Mr. Downing spoke of the Versaillaise as fruiting in long bunches, so as to be easily gathered. The tree is the best and strongest grower that we have, and perfectly hardy, and is cultivated quite extensively about Boston.

5. *The Gooseberry.*—Which are the best varieties of gooseberry for family and market purposes, and the best manner of culture and pruning?

Mr. Frost spoke of some varieties which never mildewed. The Mountain Seedling was much better near Cincinnati than the Houghton, and a more upright grower.

Mr. Hoag thought Houghton's Seedling too small; thought the Mountain Seedling enormously productive, twice as large as the Houghton, and good for bottling. Foliage has a gloss as if it had been varnished.

Mr. Moody was accustomed to cultivate the English gooseberry on highly manured land, and suffered very little from mildew, but pruned very thoroughly.

6. *The Pear.*—What variety, if but one, and if more than one, which varieties of pear-trees, in an orchard of three acres on quince, and at what distances would you plant exclusively for market purposes, and what would be the best modes of culture?

Mr. Fish, of Monroe Co., would plant the Duchess d'Angoulême, for it is a good grower, bears early enough, and being a large showy fruit, always commands the highest price in market.

Mr. Peck, of Ontario Co., would, if confined to one sort, plant the Duchesse; but, on the same principle that the farmer cultivates more than one crop, would plant several sorts—Louise Bonne de Jersey, Vergouleuse, and if Vergouleuse blights double work it. Plant the trees ten by ten each way, and work between the rows with the horse cultivator, and hoe the trees as you would corn, without hilling much.

The mention of the blight here induced a discussion as to how bad it was and how it acted, &c., which we omit.

Mr. Vick: There is no evidence that high culture induces blight, and I think it is the most false idea to allow any farmer or any person to suppose that good cultivation brings on disease. Again, others speak of the dwarf tree as alone being subject to the disease, while the greatest and worst pear blight ever known in this country was forty-five years ago, when working upon the quince was unknown—when there was not a dwarf pear-tree in existence. If we desire to have fruit, and good fruit, we must labor for it, and as these various enemies arise up against it we must fight for it. We do not want to be like the inhabitants of tropical climates, where their bread-fruit and bananas, &c., all grow without any exertion on their part; they have nothing to do except pick and eat them. See what lazy curses it makes of the fellows! almost too indolent to eat! Articles, fruit, everything acquires value only as being the result, the product of labor. In Europe they work for their fruit. In England it is a constant battle to secure fine fruit. Why, my friends, there is one enemy to fruit in England (the wasp,) which is a worse foe to combat than all your annoyances put together. It sometimes compels the horticulturist to inclose his ripening fruit with gauze to prevent its access. To be sure corn will grow if put out as many of our trees and vines are planted, but even a hill of corn requires labor to make it a decent hill. Gentlemen, we are too gloomy and despondent by ten, yes, by a hundred times. We have meetings like this, and our remarks are reported, and these reports are copied into the English papers until in England they really believe that America is the hardest part of the world to live in. When they have a fresh pest there, which, like the woolly aphis, is particularly annoying, they call it the American blight.

Mr. Moody agreed with Mr. Vick, that as to pear blight we had not near the quantity now compared with forty years ago, when we considered the greatly increased number of trees: he remembered distinctly the blighting of standards in Cayuga county in his boyhood. This increased exemption from blight he thought was due to improved cultivation, for pear-trees used to be set out and then obliged to take care of themselves, and we now pay them attention equal to that required by a hill of corn. We keep the weeds down, and the ground loose. Can not have fine fruit without fair cultivation. For a single variety he preferred Louise Bonne de Jersey—next Duchesse—absolutely necessary to cultivate highly to get large pears, and these large pears are the kind that sell readily in market, and at high prices. Small, poor pears won't sell at all.

Mr. Townsend has his trees stand ten feet apart each way, but he thinks eight by twelve would be better. Louis Bonne is the best variety to make money out of, and next Duchesse, to be planted largely—some Vergouleuse, some Seckel—Bartlett double worked on White Doyenné, and Beurré Superfin. As to blight, has often found that just as his trees have arrived at the

bearing age, they have blighted—can not say that there is any liability in sorts—all varieties seem about equally to show this disposition to taken on pear blight.

Mr. Manly, of Erie Co., recommended, 1st, Rostiezer, which is a vigorous grower, and needs pinching in regularly. 2d, Louise Bonne, for its productiveness and market qualities generally. 3d, Duchesse, always bears well, so well that the fruit ought to be thinned, so as to allow the balance to become of the best size. 4th, Beurré d'Anjou bears large crops of very handsome fruit. Here in Buffalo, a quality for standing June frosts is desirable, and Louise possesses that. After the frost of June 8, 1859, the Louise dropped but little; Duchesse, although the fruit dropped considerably, retained enough to have a very handsome and desirable crop.

Mr. Beadle, of Canada, here spoke of the very dismal tone of each speaker as to blight, and the other difficulties in the way of cultivation, and wished now to hear the other side.

Mr. Townsend, in answer to questions, stated that in his quite good-sized orchard, the balance sheet was as a whole satisfactory—$400 to $500 per acre—would average $100 per year to the acre. In fact, he knew of no business more profitable at present than dwarf pear culture, and is actively engaged in it. Had heretofore advocated thorough tillage, and does so still. Nothing else will answer. Any land that will yield sixty bushels of corn to the acre will answer for dwarf pears.

Mr. Manly apologized for speaking of his misfortunes, but those were what we would like to prevent, and we came together to learn about these dismal things, and how to prevent them, wholly or in part. As to the "other side," had cultivated Louise Bonne, &c., for five years, upon eight acres of land, which has yielded him a net of $300 per acre, and cultivates it as well as corn.

Mr. Ainsworth desired, before the society separated, to show them the difference between the results of good and poor cultivation after eight years' planting. They were standard pear-trees of different sorts transferred from the nursery at the same time. One lot, which was planted in sward ground, are mostly dead; but one Bartlett of about average size, measured just the length of this string in circumference, (4⅜ inches,) and had two pears on. It has had from one to three pears on for several years. The Tyson "stands grief" best, and a tree of Tyson was nearly double the size of the Bartlett, but had no more pears on. Another lot was planted in good corn ground, and has had the weeds cultivated down all the time—are nearly all living, and not a tree of this lot but will measure fifteen inches in circumference, while this (2 feet 9¼ inches) is the circumference of a Bartlett tree which has this year about three bushels of fine healthy pears upon it, and from which we last year gathered more than a bushel.

Of course no further comments were necessary as to the different results of poor and of good cultivation.

7. *The Grape.*—What is the best method of cultivating the out-of-door grape?

Upon this question a very interesting discussion sprang up, and we only regret our inability to give the remarks of many of the speakers verbatim.

Mr. Peck, of Bloomfield, has thus far cultivated mostly the Isabella, although he is commencing to test some of the newer varieties, especially Delaware and Diana. Plants in rows ten feet apart each way, and trains to a trellis six feet high, of four wires, supported on cedar posts forty-eight feet apart, and set three feet into the ground, the lowest wire one foot from ground. In 1859 the product of three-eighths of an acre was 4,000 pounds, sold for cash, $500. To show the importance of having grapes well cultivated, well ripened, and well packed, Mr. Peck said his first quality grapes sold readily at fourteen cents per pound, while the second quality only brought five cents per pound. After setting the vine out, allows it to make one strong shoot the first year, which in the next spring is cut off a foot from the ground. Let two shoots start from this, and make laterals upon the lowest wire of the trellis: one running each way until it meets the lateral of the next vine. From the laterals train the uprights upon the trellis, and with proper attention the whole of the wires will be covered. Spoke of winter protection: laid part of his vines down last winter, and part he allowed to remain on the trellis; but can

not this season see any difference in the vines. Some are more injured than others. In making the trellis, used new telegraph wire, No. 9, in lengths of thirty rods each, fastened at one end into a well-braced post, and at the other cut with a thread, so that, with a nut, he can loosen each winter and tighten again each spring. Finds the wire to contract about one foot in the thirty rods between the coldest and warmest weather.

Mr. Moody, of Newfane, liked the trellis training very well, but much preferred the single stake system, for several reasons: 1st, You get fine grapes on young wood, i. e., canes one year old. 2d, You can take better care of the vines through each winter. 3d, You can put your vines nearer together. Rows eight feet apart and plants five feet apart in the rows are the distances he prefers. In training to the single stake, practises what is called the bow system. First year let the plant grow all to one cane. The second year cut back the one cane, and allow two to grow right up to a stake some six feet high. Take out all the laterals, so as to force the growth into these two canes. Next spring cut away the weaker of these two, and train the other upon the bow system, and fruit it. Practises deep cultivation, and keeps it up; never drives his cultivator less than six inches from surface, and deeper as goes further from plants; liked very much the system called the double subsoiling, as a preparation for the vineyard. Did not like the practice of mulching his vines. Under this mode of training, the single bows will average sixteen pounds to the vine of grapes, worth fifteen cents per pound. This would be about $2 40 per vine; and as the acre planted five feet by eight would contain about 1,100 vines, we could afford to receive half that sum per vine and yet make more money than by training upon the trellis system as mentioned by Mr. Peck.

Mr. Moody was thinking very highly indeed of the Delaware and Diana vines, because, 1st, they always ripen their crops, and the Isabella fails about one year in five; and 2d, when ripe, the Isabella always requires some sugar for the manufacture of wine; while the Diana and Delaware have saccharine matter sufficient to dispense with "rock candy" or "loaf sugar."

Mr. Herendeen, of Wayne, spoke also in confirmation of Mr. Moody as to Diana and Delaware grapes; mentioned also a fruit-grower named Bradley, who by careful attention to his picking and packing his crop of Isabella fruit, sold his grapes last season at twenty cents per pound. They were nicely packed in pasteboard boxes with five pounds to the box, so as to reach market in fine order. Other parties who wished to realize such prices sent their fruit in bulk, and not so well packed, and their returns only averaged five cents per pound.

Mr. Ainsworth, of Bloomfield, trains his vines upon trellises; but thinks that all the protection which they need in winter is to loosen them each autumn from the trellis, and allow the vine to lie flat upon the ground. Does not think it needful to throw earth upon them. Puts his vines twelve feet apart in the rows, but the rows ten feet apart, same as Mr. Peck's.

Mr. Bissell, of Rochester, could endorse all that had been said in commendation of either the Diana or the Delaware. Both varieties are largely endued with saccharine matter, and need no supplies of sugar when the juice is expressed for wine. Again, in our northern latitude, we must have varieties which, while they produce largely and freely, are also certain to bring their crops to maturity every season. In our climate we can rarely ripen the Catawba, and the Isabella so frequently fails that we have been anxiously searching for the vine to take the place of both: now in the Delaware and Diana we think we have found them. As a black grape, Concord is rapidly becoming a deserved favorite.

Mr. B. advocates the "renewal system," and would prefer the trellis training, although the stakes will do very well. Post and wires cost more at first than stakes, and are more labor to put up than the stakes; but, although in the beginning you can get more fruit to the acre from stake training, you can, when the vine is fully in bearing, get more fruit from the trellis training; and for table use the trellis fruit is finer and better fruit. For wine manufacture we can probably get a greater weight of grapes per acre from stake training, but the bunches are not likely to be so large nor so fine looking.

PROGRESSIVE GARDENERS' SOCIETY.—The following is a continuation of the proceedings of this Society from our last number. It begins with the last part of Prof. Stephens's essay on *Manures*.

In considering the application of manure to the soil, it is an important fact, not to be lost sight of, that neither stable manure nor animal matter in their fresh state are fitted to give up their fertilizing elements as food for plants. Strictly speaking, the food of plants consists entirely of inorganic matter. Stable manure in its fresh state consists chiefly of undecomposed litter and straw, and of partly decomposed vegetable matter contained in the solid excrements. After a thorough fermentation, which is a kind of slow combustion, a dark, rotten, powdery mass remains, the organized substances have been decomposed, a large part of the water has been expelled, and if the manure heap has been properly managed we have the fertilizing elements in a more concentrated and soluble form than before, and ready at once to enter into the office of vegetable nutrition.

Some valuable experiments by Voelken on the composition of fresh stable manure 14 days old, on which no rain had fallen, and on the same manure well rotted for six months, gave the following results. He found that during the fermentation of dung the quantity of both soluble organic and soluble mineral matters rapidly increases, and that the proportion of ammonia and of phosphate of lime in these soluble matters also rapidly augments. Thus 100 parts of dry soluble organic matter from rotten dung contained 6.04 of nitrogen, while 100 from rotten dung contained 8.02, and the phosphate of lime was nearly doubled. The proportion of organic matter decreased as the fermentation went on, but the loss was in carbonic acid and other non-essential gases.

There is apparently no serious loss of ammonia by evaporation, as is commonly supposed. Direct experiments have shown that in the cold no ammonia is given off from the surface of farm-yard manure, and that a considerable amount of heat is necessary for this purpose. Now as this occurs only in the interior of the heap where the fermentation is active, the liberated ammonia, in passing through the outer layers of decaying organic matter at a lower temperature, is arrested. This fact was proved by Voelken by the analysis of fresh manure made into a heap, and left for six months. The amount of organic matter was found to have diminished from 960 lbs., but the total amount of nitrogen at the commencement was 18.23 lbs., and at the end of six months 18.14lbs, or nearly the same. To guard against the danger of loss in fermenting manure it is only necessary that the heap be protected from rain, and if the fermentation becomes so active as to produce much heat, let the heap be covered with turf or sod, kept moist by occasional watering, or sprinkle the heap occasionally with sulphuric acid and water, which does quite as well as the covering of turf.

I do not mean to say that it is not better sometimes to apply the long manure directly to the soil. If this is done, the fermentation and decay must take place in the soil before the plants can avail themselves of the nourishment. The advantage gained is that the manure has more tendency to lighten and render the soil porous, and also to contribute some warmth to the soil during fermentation. While short dung is certainly preferable for spring crops, long dung may be better for winter grain. At all events, it is better to bury the fresh manure at once in the ground than to leave it subject to the drenchings of either winter or summer rains, as is the practice of some improvident farmers. The above facts showing the advantage of fermented over fresh manure apply equally to animal matter.

In estimating the value of artificial manures in which animal matter forms the chief ingredient, it is of the utmost importance to know whether the animal matter has been simply dried up, or whether it has been decomposed by fermentation in the process of manufacture; for on this will depend the activity and also the concentratedness of the manure. In the thorough and judicious fermentation of animal matter, not only in the water already existing in the mass expelled, but the weight of the manure is further greatly reduced by the combination of the elements of water and of carbonic acid and their subsequent expulsion, while all the mineral elements and the am-

monia are retained. The manure is therefore much more concentrated than it could be made by merely drying the crude material. It is also rendered more active, for the nitrogen has been brought into the form of ammonia, in which state alone it is suited to be food for plants. The phosphate of lime, also, usually considered an insoluble compound, has, in the process of decay, become soluble. Woehler, the great German chemist, has observed that bone dust moistened with water, yields, after a time, a considerable quantity of soluble phosphate of lime, and that this solubility rapidly increases with the putrefaction of the gelatine of the bones. Hence, whenever earthy phosphates exist with organic matter, water will invariably dissolve a portion progressively with the decomposition of the organic matter by fermentation. This fact is of the utmost importance to agriculture.

Guano is the best example that can be adduced of a manure that has undergone the beneficial influence of complete decay, and it is to this fact that its activity as a stimulant to vegetation is to be chiefly attributed. It contains, however, in too large proportion the elements for producing seeds and nutritious roots, compared with the mineral elements for strengthening the stems and leaves of plants, to be taken as a complete fertilizer. To a soil sufficiently supplied with potash and soluble silicates, guano may be advantageously applied. On soils deficient in these substances, or scantily supplied with lime, its continued application will produce exhaustion.

The use of special manures is always more or less a hazardous expenditure, unless the agriculturist is accurately acquainted with the composition and wants of his soil. The use of phosphate of lime on a soil which happened to be not deficient in that particular substance, would prove an expenditure yielding at least no immediate return; it would not increase the crop. And even if the soil did lack phosphates, if at the same time it was also deficient in potash, or any other essential mineral ingredient, then the addition of phosphates alone would fail to produce fertility. If a soil merely lacks some particular ingredient, of course the addition of that ingredient will produce fertility. It is easy to see, then, the cause of the contradictory experience of agriculturists as to the value of salt, and of gypsum and lime as special applications. It would be folly to apply lime to a calcareous soil, or salt to lands moistened by the spray of the ocean. I will not speak of the advantages of these applications at present, though if time permits I would like to remark upon them at a later stage of this discussion.

I will merely add now a few words concerning one supposed disadvantage attending the use of artificial fertilizers. It is thought very generally by farmers, that concentrated manures can never take the place of bulky stable manure, on account of the deficiency of the former in humus-forming elements. Now, while I am decidedly of opinion that, as far as the agriculturist can obtain an abundance of stable manure at not too great a distance, he can not do better than to make that his main reliance, depending on artificial manures only as occasional aids to bring on an early crop, or to help on a slow one; still, in the lack of stable manure I have no doubt that artificial manures may be made to take its place fully and successfully. I attach but little importance to the organic matter of straw or litter aside from the mineral ingredients which it contains, and its mechanical effect in loosening a soil. The organic matter itself decomposes simply into water and carbonic acid, elements which nature supplies freely in other ways. It is chiefly the inorganic matter, the potash, soda, lime, and magnesia contained in the decaying vegetable matter, which give it its manurial value. These minerals can be easily applied in artificial manures; and then, as regards the mechanical advantage of bulky manures in lightening a soil, this same advantage can be more effectually obtained by a judicious rotation, by which a sufficient amount of sod and roots will be from time to time buried in the soil.

(To be continued.)

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$150 AND $175

PIANO FORTE.

In presenting The "**PARLOR GEM,**" and its merits to the Trade and the Public generally, **We Challenge the World** to produce as good a Piano, for the price, as is represented in the accompanying cut.

The **Style** of The "Parlor Gem" is a Full Finished, Highly Polished Case—All Large Round Corners, Bead Moldings, Carved Lyre, Fancy Legs and Desk, Overstrung (*Square Grand*) Scale, Richly Bronzed, Full Iron Frame; and is **Without a Rival** in Beauty of Finish, in the Durability, and exceeding Delicacy and Promptness of the Action, or Purity, Volume and Brilliancy of Tone.

The **Scale**, or Compass of the Key-Board is Six and One-Third Octaves; from the lowest F, to the highest note (A) of an A to A 7 Octave Instrument. By this judicious arrangement of the Key-Board, any music can be performed on the "Parlor Gem," that can be on a Seven Octave Piano Forte. The Size is about *two-thirds*, and the WEIGHT *one-half* that of an ordinary Seven Octave Instrument; and the many advantages combined in this arrangement —such as economy of space in small rooms; reduction of the expense and risk of transportation, &c., are so obvious, that we need not stop to enlarge upon them.

We make two Classes of the "Parlor Gem," and designate them as No. 1 and No. 2.

No. 1—Is **Grained** in Imitation of Rosewood; and we deem it proper here to remark—not only is the Graining so perfect and beautiful an imitation of the natural Rosewood, as absolutely to defy detection on the part of many who have examined the same,—BUT IN ALL OTHER RESPECTS, the No 1. "Parlor Gem," is PRECISELY THE SAME AS No. 2, which is finished in richly figured Rosewood.

As a **Piano**, the "Parlor Gem" is **Perfect** in its **Musical Qualities** and **Mechanism**; and as an **Ornament** for the **Parlor** or **Boudoir**, WELL WORTHY the appellation of The **PARLOR GEM.**"

THE PRICE OF THE

No. 1.—PARLOR GEM, (Grained Case) is.....$150
No. 2.— ditto, (Rosewood Case)..... 175

These **Pianos**, together with our full Seven and Seven and a Quarter Octave **SQUARE-GRANDS** and **PARLOR GRANDS**, which we shall continue to manufacture in every variety of style, and containing our **Repeating Grand Action**, are now offered at such extremely low prices, that no Instrument will be delivered until the money is received.

Having established our business on a strictly **Cash** basis, WE CANNOT BE UNDERSOLD; and are enabled to offer **Extraordinary Inducements to Cash Purchasers.**

☞ **We Warrant every Piano-Forte**, whether selected in person, ordered by letter, or purchased from our Agents, to give PERFECT SATISFACTION; or the money and all expenses promptly refunded.

☞ Books containing full particulars of our Instruments, and a description of our Repeating Grand Action (Patented June 8, 1858, and for which we claim *infinite superiority over* ALL OTHERS), and Circulars, with Illustrated Price List, will be forwarded, free of expense, to any address.

MARSHALL, JAMES & TRAVER,

Aug. & Sept. **MASONIC HALL, Albany, New York.**

TREES! TREES!! TREES!!!

FOR THE AUTUMN OF 1860.

THE Subscribers, grateful for past favors, and encouraged with a larger and better assortment than ever, ask the attention of Nurserymen, Dealers, and Planters, to their immense stock of well-grown trees and plants, comprising—

APPLE-TREES—Standard and Dwarf, strong and healthy; with "King of Tompkins Co." and other good sorts in large supply.

PEAR-TREES—Dwarf. A splendid stock; two and three years; fine, strong, and healthy trees of the most approved sorts, on the Quince.

PEAR-TREES—Standard. A large and fine assortment of the most desirable kinds.

CHERRY-TREES—Standard and Dwarf. One, two, and three years; a fine stock and beautiful trees. Early Richmond by the 100 or 1,000.

PEACH-TREES—One year; *Plum*, two years; *Orange*, *Quince*, *Apricots*, and *Nectarines*.

CURRANTS—Red and White Dutch, Victoria, Cherry, White Grape, and other sorts.

GOOSEBERRIES—Houghton, Seedling and the best English varieties.

RASPBERRIES—Large quantities of such kinds as Orange, Belle de Fontenay, Franconia, Antwerps, &c.

BLACKBERRIES—Lawton largely, Dorchester, and Newman's Thornless.

RHUBARB—Myatt's Linnæus, Cahoon's Mammoth, Downing's Colossal, and other varieties.

GRAPE-VINES—Delaware, Diana, Concord, Hartford Prolific, Rebecca, Logan, and many other new and old sorts, in large quantities; strong plants, *one* and *two years old*, grown in the open air and in large pots under glass. Also

FOREIGN VARIETIES,

For cultivating under glass, of the best sorts, such as Stockwood Golden Hamburgh, Bowood Muscat, Muscat St. Laurent, Black Hamburgh, Zinfindal, Royal Muscadine, and 30 others of the best kinds, one and two years old; and for

ORCHARD-HOUSE CULTURE,

We have a fine lot of these in extra large pots for *immediate fruiting*.

EVERGREENS—Norway Spruce, Balsam Fir; Scotch, Norway, Austrian, and White Pines; Red Cedar, American and Siberian Arbor Vitæ, Junipers, &c., &c.

DECIDUOUS TREES AND SHRUBS—Horse Chestnut, Mountain Ash, European and American Linden, Maples, American Chestnut, American and European Ash, Judas Tree, Laburnum, Snow-Ball, Purple Fringe, Althæas, Spiræas, &c.

ROSES—Climbing and Hybrid Perpetuals, a fine assortment of strong plants.

HEDGE PLANTS—American Arbor Vitæ, Red Cecar, Privet, Honey Locust, &c.

STOCKS FOR NURSERYMEN—Angers Quince, Pear, Plum, Mazzard and Mahaleb Cherry, one year, and Apple Stocks, two years.

Packing done in the best manner for all parts of the country.

Descriptive Catalogue furnished; wholesale Catalogue in August.

T. C. MAXWELL & BROS.,

Geneva, Ont. County, N. Y.

August 1, 1860.

ARTICLES OF EVERY-DAY USE.

B. T. BABBITT'S

PURE MEDICINAL YEAST.

68 AND 70

Manufactured from common Salt and Pure Cream Tartar. When used in Bread, Cake, or Biscuit, it turns to gas (like that from a bottle of Soda Water,) and remains dormant in the dough until it is set in the oven, when the heat causes the gas to escape through the dough while baking. The Bread, Cake, or Biscuit is not only very light, but perfectly wholesome. Where this Yeast is used you will require about one-quarter the amount of shortening used with ordinary Yeast. It may also be use for Buckwheat Cakes, Johnny Cakes, and all kinds of Pastry. This Yeast is put up only in one-pound cans, with checkered label. *Red, White, and Blue—no other is Genuine—beware of imitations.*

B. T. Babbitt's Pure Concentrated Potash.

Warranted double the strength of common Potash, and superior to any Saponifier in market, put up in cans of 1lb., 2lbs., 3lbs., 6lbs., and 12lbs., with full directions for making Hard and Soft Soap. One pound will make fifteen gallons of Soft Soap. No lime is required. Consumers will find this the cheapest Potash in market.

B. T. Babbitt's Medicinal Saleratus.

A perfectly pure and wholesome article, free from all deleterious matter, so prepared that, as the circular accompanying the Saleratus will show, nothing remains in the bread when baked but common Salt, Water and Flour. Put up neatly in papers, 1 lb., ½ lb., and ¼ lb.

B. T. Babbitt's Concentrated Soft Soap.

One box costing One Dollar will make forty gallons of handsome Soft Soap by simply adding boiling water.

B. T. Babbitt's Concentrated Sal Soda.

A new article exclusively for the South. Sal Soda or Washing Soda cannot be sent South during warm weather, as it deliquesces or melts. I dry out the water and put up the Sal Soda in 1 lb. papers, "warranted to stand the warmest climate." One pound is equal to four pounds of ordinary Sal Soda or Washing Soda—consequently it is much cheaper—the dealer saves sixty-five per cent. on the freight, as he does not have to pay freight on water.

Ask your Storekeeper for B. T. Babbitt's Concentrated Sal Soda, in one-pound papers.

B. T. Babbitt's Soap for Family Use.

One pound of this Soap is equal to three pounds of ordinary Family Soap. One pound will make three gallons of handsome Soft Soap. It will remove paint, grease, tar, and stains of all kinds. It will not injure the fabric; on the contrary it preserves it. It will wash in hard or soft water. But little labor is required where this Soap is used. Machinists and Painters will find this Soap superior to anything in market. If your Storekeeper does not keep the above goods, send $5 by mail and I will send a package of either article, or an assorted box containing a part of each article, as you may direct. Send the name of for your Post-office, also the State and county in which you reside, with directions shipping. Address

B. T. BABBITT,

64, 66, 68, 70, 72 and 74 Washington St., New York.

A LIBERAL DISCOUNT TO STOREKEEPERS.

FIRST PREMIUM PANSY SEED.

VIOLA TRI-COLOR MAXIMA.

THE subscriber has now ready his new crop of Pansy Seed. Having for several years past made the cultivation of this favorite flower a *Specialty*, he has succeeded, by a careful selection of seed, in producing flowers unsurpassed by any ever exhibited in this country. The *first premium* was again awarded in April last, by the Pennsylvania Horticultural Society, (see report in the May number of the Gardener's Monthly, page 160). From August to November is the proper season for sowing to insure fine blooms, during the winter and spring months. Printed directions of my method of growing the plants will accompany each packet of seed.

Price, 50 cents per packet, or 5 packets for two dollars. I have also *new seed*, my own growth, of the following desirable plants. Seed sown now will insure fine blooming plants for next season.

	CENTS.
ANTIRRHINUM, from splendid named varieties, per packet - -	10
DELPHINIUM FORMOSUM, large brilliant blue flowers, - -	10
" Consolida tri-color, three colored Larkspur, - -	10
DIANTHUS BARBATUS, *Auricula flowered*. Sweet-William; superb and new, per packet - - - - - - - -	20
NEW DARK CRIMSON Sweet William, - - -	10
PRIMULA POLYANTHUS, beautiful varieties, - -	25
HOLLYHOCKS superb English varieties, in packets of 8 different colors, each separate,	50
LARKSPURS, double dwarf rocket, 12 varieties, - - -	60
PINKS, twelve choice varieties. - - - -	60

All the above are hardy.

Also the following *Choice Greenhouse Seeds*, recently imported from the best European collections:

PRIMULA SINENSIS FIMBRIATA, Alba and Rosea, each - -	25
" " " *Kermesina Splendens*, - -	50
CINERARIA, choice Hybrid varieties, - - - -	25
CALCEOLARIA, fine mixed, - - - - -	25
" Choice Hybrid, spotted varieties, - - -	50
CARNATION, fine imported German, - - - -	50

The following may also be mentioned as suitable for sowing in the fall for winter and early spring blooming: Sweet Alyssum, Candytuft, Mignonnette, Salpiglossis, Nemophila, at 5 cents per paper. Autumnal, Emperor, and Brompton Stocks, German Wall-flowers, Lobelia ramosus and gracilis, at 10 cents per paper.

DUTCH BULBOUS ROOTS.

My new descriptive Catalogue of bulbs will be published by the 20th of August, and will contain many new varieties. A portion of my regular importation is expected early in September by steamer.

Catalogues of Seeds, Plants, Bulbs, forwarded to all applicants.

HENRY A. DREER,

Seedsman and Florist,

327 Chestnut St., Philadelphia.

Aug. & Sept.

Rochester Wholesale Nurseries.

We take pleasure in calling the attention of the Public to the immense stock of Fruit Trees which we offer for sale this season.

We have now about 200 Acres of very fine land devoted to Nursery purposes, which, with our long experience in the business, enables us to furnish stock of the *finest quality*, at the *Lowest Wholesale Rates*.

We have arranged our business so as to do almost exclusively a *wholesale trade;* consequently *Nurserymen* and *Wholesale Buyers* will find us better prepared to meet their wants, than those who retail the greater part of their stock.

The following are some of the principal items which we offer this season :

ONE MILLION APPLE TREES.

200,000	Apple Trees,	3 and 4 years old.
300,000	" "	2 "
500,000	" "	1 "
100,000	Dwarf Pear Trees,	1 and 2 years old.
10,000	Standard "	" "
20,000	Standard Cherry	" "
10,000	Dwarf Cherry	" "
20,000	Peach	" "
10,000	Plum	1 and 2 years old.
5,000	Orange Quince	2 years old.

GOOSEBERRIES.

All the best English varieties. Also,

50,000 HOUGHTON'S SEEDLING, Extra, very cheap.

CURRANTS

Of the following varieties: CHERRY, VICTORIA, WHITE GRAPE, WHITE DUTCH, RED DUTCH, BLACK NAPLES, BLACK ENGLISH, &c.

20,000 RASPBERRIES, BLACKBERRIES, STRAWBERRIES, &c. All the best varieties in large quantities.

STOCKS FOR NURSERYMEN.

100,000 MAZZARD CHERRY, 1 year old, fine.
500,000 Apple Stocks, 1 and 2 years old, extra.

We desire to call particular attention to our splendid stock of

CHOICE HARDY GRAPES,

Of which we have a Large quantity of all the Best and Newest Varieties; DELAWARE, DIANA, HARTFORD PROLIFIC, CONCORD, REBECCA, NORTHERN MUSCADINE, LOGAN, &c. All of remarkably thrifty growth.

Also, a very fine assortment of EVERGREENS, ORNAMENTAL DECIDUOUS TREES, HARDY SHRUBS, ROSES, &c., &c.

Aug. & Sept. HOOKER, FARLEY & CO.

ORNAMENTAL WIRE WORK.

Flower Stands, Archways for Flowers, Garden and Wire Trellis, for Fronts of Buildings, Wire Bordering for Inclosing Flower Beds, Wire Fencing for Gardens and Divisions.

WIRE NETTING FOR FENCING,

And all descriptions of Wire Work made to order. Terms Cash.

Z. DAVENPORT,
STAMFORD, Ct.

PHOTOGRAPHIC WOOD ENGRAVING ESTABLISHMENT.

WATERS & SON, Nos. 86, 88, & 90 Fulton Street,

OFFICE, Entrance 90, First Floor,

Next door West of Oak Hall Clothing Store. **NEW YORK.**

EMPLOYING PHOTOGRAPHY, and producing the photographic image upon the wood blocks' and engraving therefrom, we are enabled to give perfect accuracy of detail and correct outline.

EMPLOYING SEVERAL ARTISTS, we are able to give first-class Original Designs for Book Illustrations, Outline Drawings of Machinery, Envelopes, Cards, Labels, &c., &c.

EMPLOYING FROM 25 TO 30 MEN, we are able to promptly execute all orders with which we may be favored.

EMPLOYING A SENSE OF RIGHT, we charge only a FAIR REMUNERATIVE PRICE.

☞ We are prepared to execute orders for ALL KINDS OF WOOD CUTS, in a superior manner and at short notice.

Aug., Sept. & Oct. A.

SPLENDID DUTCH FLOWERING BULBS.

BARNES & WASHBURN, Seedsmen & Florists,

HARRISON SQUARE, (near Boston) Dorchester, Mass.,

Beg to inform the public, that their Descriptive and Price Catalogue of Bulbs, for fall of 1860, is now ready, and will be forwarded to all applicants inclosing a three cent stamp.

Address **BARNES & WASHBURN,**

Aug. 4t. **HARRISON SQUARE, Mass.**

CENTRAL NURSERIES,

YORK, PA.

The Subscribers would invite the attention of Nurserymen, Dealers, and Amateurs, to their large and well-grown stock of Fruit and Ornamental Trees, embracing

APPLES, Standard and Dwarf, of the most desirable varieties.
PEARS, " " remarkably thrifty.
PEACHES, on Peach, Plum, and Almond Stocks.
CHERRIES, on Mazzard and Mahaleb Stocks.
PLUMS, Standard and Dwarf.

Quinces, Apricots, Nectarines, Grapes (Native and Foreign, embracing the new varieties,) Currants, Gooseberries, Raspberries, Blackberries, Strawberries, Rhubarb, and Asparagus of the choicest kinds.

Evergreen Trees and Shrubs, including the New Conifers, Deciduous Trees, for the Avenue and the Lawn; Flowering Shrubs, Climbing and Trailing Plants, Roses, (on their own roots,) Hedge Plants, and Bedding Plants of the choicest varieties.

Priced List on application.

EDWARD J. EVANS & CO.,

Aug. 3t. **YORK, PA**

LOOK TO YOUR GARDENS!

A Sovereign Remedy found at last to meet a universal want.

Insects and Vermin of all kinds

Effectually driven from the Field and Garden by the use of **JOHNSON'S PATENT ATTENUATED COAL TAR.**

☞ It is in the form of a **Dry Powder,** simple and easy to use, and immediate in its effect, and it is warranted to free every description of vegetation, from every species of Insects and Vermin. The compound also possesses two powerful fertilizing ingredients.

Price in Boxes.—1 lb., 25 cts.; 3 lbs., 50 cts.; 8 lbs., $1. In Bags, 20 lbs., $2; 50 lbs., $3 50; 100 lbs., $5. By the Half Ton, $40; by the Ton, $65.

Agents wanted everywhere. They will find this the best selling article before the American people, as it is indispensable to every man who cultivates a rood of ground.

Full particulars sent on application.

Address

J. G. WELLS, Sole Agent,

Aug. 8. **Cor. PARK ROW & BEEKMAN ST., New York.**

STRAWBERRIES!!

The Wilson Albany-Strawberry.

For its merits and the position it holds in the Strawberry Family—see the reports of every Horticultural Society on Strawberries for the year 1860.

Send your orders to headquarters, viz., to the Albany Nursery, where it originated.

Price per 100, $1.

" 1000, $8.

ADDRESS,

JOHN WILSON,

Albany, N. Y.

Market Gardeners

Will consult their own interests by procuring their supplies of **Early Cabbage, Cauliflowers, Corn Salad, Spinach, Lettuce, Turnip Seeds, &c.,** for Fall Sowing, from the Subscriber. All the seeds are warranted fresh and genuine. Prices moderate.

Send for Priced Catalogues.

HENRY A. DREER,

Seedsman and Florist,

Aug. & Sept. **327 CHESTNUT STREET, Phila.**

PARAGON SELF-GENERATING
GAS LIGHT BURNER.

Complete in itself, without other machinery. Applied with founts to gas fixtures in every variety; also, to Hand-Lamps such as use Oil, Burning Fluid, Coal Oils, &c., making its own gas in the burner, with entire safety from burning fluid. Devoid of smell, smoke, or flicker; combining simplicity, economy, and brilliancy of light in any temperature; adapted to and used by churches, factories, dwellings, hotels, steamers, railroad cars, omnibuses, private carriages, street lamps, &c., &c.—all at an expense of less than one cent per hour each burner.

Call and see this light for the million, or send for circular.

BUTLER, HOSFORD & CO.,

30 BROADWAY, N. Y.

State and County rights for sale. Parties wanting gas in large or small quantities, should apply as above before making other engagements.

Aug. 6t.

Inventors' Depot and Sales Rooms,
30 BROADWAY, NEW YORK.

The design of this Establishment is for Sale of the State and County Rights for Valuable Patents.

For the Exhibition and Sale of Patented Articles of undoubted merits; and for the Purchase of Articles of any Description, for parties distant from the city. This business is conducted on a Strictly Commission basis.

The Subscribers purpose through their varied and extensive facilities, to make their establishment the

HEAD QUARTERS

for Inventors and Owners of Patents possessing positive merit, and such only.

For persons desirous of making Safe and Profitable Investments in such Patents, and for all who may feel interested in the Progress and Products of the inventive talent of our country, this Dēpôt will offer constant opportunity to persons of liberal and also of limited means, for judicious selection of Patents of ready sale in every department in life.

For further information, call at our Dēpôt, or send for a circular.

BUTLER, HOSFORD & CO.

Aug. 6t.

PLUM TREES! PLUM TREES!!

400,000!

Particular attention is invited to our Plum trees, of which we have a full supply, comprising the leading and most desirable varieties.

Plum Trees,	1	year	Budded,	3 to 4 feet,	$20.00	per 100,	$190.00 per 1000.
"	2	"		4 to 6 "	$25.00	"	$225.00 "
"	3	"		6 to 7 "	$30.00	"	$260.00 "

40,000 PEAR TREES, STANDARD,

One Year Budded, 3 to 4 feet, $15.00 per 100, $125.00 per 1000.

*Pear Trees must be removed this fall. Address,

C. REAGLES & SON,

Aug. Sep. & Oct. Schenectady, N. Y.

THE BARTLETT STRAWBERRY!

The Subscriber, having thoroughly tested this new Strawberry for some three years past, by the side of the most esteemed known varieties, can confidently recommend it as one of the best, either for the Garden or Market. It is a large variety, nearly

As Productive as the Wilson,

But every way

SUPERIOR TO IT IN QUALITY.

Its firmness and fine crimson color will give it a high place as a market fruit; and it is believed that the Bartlett Strawberry will be found among Strawberries, what the Bartlett Pear is among Pears—*an indispensable variety for general cultivation.*

Price $1.00 per dozen. Sent free by mail, $1.25 per dozen. Per hundred, $5.00.

Address,

A. S. FULLER,

Aug. Sep. & Oct. BROOKLYN NURSERIES, BROOKLYN, L. I.

LARGE PYRAMID
AND
STANDARD PEAR-TREES.

A few large-sized Pyramid Pear-Trees, on both Quince and Pear Roots, and Standards on Pear Roots, will be sold by the Subscriber at $3 to $5 each, packed and delivered on any route from the city. The Standards are 12 to 14 feet high, with clean trunks 4 to 5 feet in height and 2 to 3 inches in diameter. The Pyramids are 7 to 12 feet high, and handsomely shaped. Trees 7 to 9 feet, $3—9 to 12 feet, $5.

The Trees are eight and nine years old, and have an abundance of fibrous roots.

Pyramids on Quince and Pear.

Flemish Beauty,
Vicar of Winkfield,
Urbaniste,
Louise Bonne de Jersey,
St. Ghislain,
Colmar d'Aremberg,
Glout Morceau,
White Doyenne,
Duchesse d'Angouleme,
Beurre d'Amalis,
Bartlett,
Easter Beurre,
Beurre Diel,
Winter Nelis,
Napoleon,
Beurre d'Aremberg.

Standards on Pear.

Vicar of Winkfield,
St. Michael Archange,
Oakly Park Bergamot,
Madeleine,
Gansel's Bergamot,
Dix,
Urbaniste,
Doyenne Sieulle,
French Jargonelle,
Heathcot,
St. Ghislain,
Dunmore,

A good stock of Pyramid Trees on Quince and Pear stocks, Selected Nursery size, 2 to 4 years, $40 per 100; extra size, 4 and 5 years, 75 cents to $1 each.

Aug. & Sept. T. W. FIELD, 74 Beekman St., N. Y.

100,000 PEACH TREES.

HIGHTSTOWN, N. J., Nurseries, Established 1825.

ISAAC PULLEN, Proprietor.

Fruit and Ornamental Trees of thrifty growth and fine assortment of varieties, for sale in the fall of 1860, and spring of 1861. Persons desirous of purchasing are invited to write for a Descriptive Catalogue, which will be ready for distribution by the first of August.

In addition to his usual large stock of Fruit and Ornamental Trees, the Proprietor has the pleasure of offering for fall and spring sales, the largest and finest stock of

PEACH TREES

which he has ever grown. The late severe winter which proved so disastrous to peach nurseries in all sections of the country, both north and south, has in no manner injured his. Those who intend to plant largely are especially invited to visit the nurseries and examine the stock for themselves. A long experience extending through a period of over thirty years, enables the proprietor to raise such varieties as are valuable for market. During this period he has sent trees to all sections of the country, and knows from an extensive correspondence with his customers how each kind succeeds, and which have proved profitable in particular localities. With this experience, he can confidently recommend his stock, and can assure those who leave the selection of kinds to him, that they shall receive such as will prove remunerative.

During the months of August and September, the fruit of the principal varieties of Peach, Pear, and Apple may be seen; at which time those intending to plant are invited to call.

All orders, communications, &c., to be addressed to

ISAAC PULLEN,

HIGHTSTOWN, Mercer Co., New Jersey.

N.B.—100,000 Silver Maple Seedlings, one year old.

CIRCULAR.

The undersigned is now prepared to manufacture and put up

Iron Grape Trellis,

FOR OUT OF DOOR VINES.

This Trellis has proved itself to be far superior to wood in durability, strength, neatness, &c., being made of rods from one-sixth to a half-inch in diameter, (which may be galvanized if required,) appearing more light and graceful, but being *much stronger, and costing much less* than wood.

GRAPERIES WIRED WITH CARE.

TERMS CASH.

Z. DAVENPORT,

Aug. **STAMFORD, CT.**

E. D. DAVIS',

Aquaria Cement.

I would call the attention, particularly, of those making or using Hot Houses, to the above, one pound of which will set more glass than four of putty. Used for *Aquaria, Hot Houses*, and various other articles required to be made *water* or *air* tight: will not cleave from glass, metal, or wood; will not become hard and crack.

E. D. DAVIS,

Sole Manufacturer,

Aug., Sept., & Oct. No. 52 Fulton Street, N. Y.

SELECT STRAWBERRIES.

FROST & CO.

Genesee Valley Nurseries, Rochester, N. Y.

Offer for planting in August and September, the most extensive stock and collection of **Strawberry Plants** in the United States.

The following fine leading varieties are offered—delivered at any designated place in Rochester, and packed so that they will reach distant destinations in perfect order—for 100 plants, $2; for 500, $7.50; for 1,000, $10. Larger quantities at less rates.

Brighton Pine, Burr's New Pine, Fillbasket, Genesee, Hooker, Hovey's Seedling, Jenny Lind, Large early Scarlet, Triomphe de Gand, Victoria (Trollope's), Wilson's Albany.

Catalogues will be forwarded, giving full particulars of the above and 48 other sorts, on receipt of a postage stamp. Address,

FROST & Co. Rochester, N. Y.

IONA VINES.

My stock of native vines comprises all of the valuable varieties with which I am acquainted. The plants have been produced with great care, under the most favorable circumstances for healthy development, and surpass in excellence any that I have heretofore been able to offer.

For the fall trade, only a limited supply of Union Village, Lenoir (Lincoln) Pauline, Elsingburg, Taylor (or Bullitt) and Allen's Hybrid is offered. Of best Delaware layers also, the supply is not large, but quality unequalled.

The stock from Delaware, single eyes grown both in house and open air, is large and fine. For vineyard planting some strong vines, grafted on Catawba and Isabella stocks, are offered at low price—roots very strong.

Very large layers of Diana, Herbemont, and Concord, grown with especial care for immediate bearing. Good layers of Anna, Roger's Hybrid, 12 kinds; also Clara, Cassidy, To Kalon, Rebecca, Miller's Louisa, Logan, Emily, Canby's August, Early Hudson, H. Prolific, Cuyatoga, &c.

A general assortment of Foreign varieties for vineries.

Of Downing's Everbearing Mulberry, the supply is not large, and a great part of the trees already ordered. They are very vigorous, and the wood well grown and matured.

Wholesale list sent to the trade on application. Fourth edition of descriptive Catalogue sent for two three-cent stamps. It is designed to be a full and comprehensive treatise on the management of the vine, giving such information as purchasers and growers are supposed to need. Particular direction are given for the preparation of the soil and planting, and the directions for training are illustrated by many carefully prepared engravings.

The descriptions of the varieties will be found accurate and trustworthy, being drawn from personal knowledge, and very extensive observation.

C. W. GRANT,

IONA, NEAR PEEKSKILL, WESTCHESTER CO., N. Y.

Aug. Sept. Oct. 1t.

500,000 Apple Grafts, put up in the best manner, and ready for delivery by 15th March next. Orders solicited. Price $6 to $8 per 1,000.

BARNABY, SHEPHEARD & CO.,

August 1st, 1860. **RAYSVILLE, IND.**

FOR BOYS.

A NEW FEATURE IN SCHOOL INSTRUCTION.

A Family School limited to 20 pupils, and combining **HORTICULTURE** *practical* as well as *theoretical*, with **MENTAL DISCIPLINE** and **MORAL CULTURE**.

The above mentioned School will open September 4th, 1860, at METUCHEN, N. J., under the superintendence of Pro. WM. HOPKINS, formerly principal of Auburn Academy—but for the past six years Professor of Chemistry and Natural History in Genesee College, Lima, N. Y.

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Metuchen, N. J.

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Aug. & Sept.

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